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ABSTRACT

To determine whether the Frayer Model of Concept Attainment, which uses a systemic procedure for defining concepts and which structures materials in a manner designed to facilitate comprehension for both good and poor readers, is superior to a method of defining concepts employed by many social studies textbooks, a study involving 360 ninth graders was undertaken. The influence on comprehension of the arrangement (chronological, topical, reverse chronological) of materials within each method was also examined. The students were divided into two reading levels (good and poor) on the basis of their performance on a standardized reading test and were then administered an experimental comprehension test. The results indicated that both good and poor readers who used material organized according to the Frayer model received significantly higher scores on the comprehension measure than did those readers who employed material organized according to the textbook approach. However, arrangement of concept examples within both the Frayer and textbook methods had no significant effect on comprehension scores. (Author/FL)

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Technical Report No. 290

# A COMPARISON BETWEEN THE FRAYER MODEL OF CONCEPT ATTAINMENT AND THE TEXTBOOK APPROACH TO CONCEPT ATTAINMENT

Report from the Project on Conditions of School Learning and Instructional Strategies

by Charles Peters

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Center for Cognitive Learning
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## STATEMENT OF FOCUS

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ABSTRACT

The objective of this study was to determine whether the Frayer Model of concept attainment which encompasses a systematic procedure for defining concepts and structures material in a manner designed to facilitate comprehension for both good and poor readers was superior to a method employed by many social studies textbooks in defining concepts. The rationale for selecting the Frayer model of concept attainment was based upon results obtained from research related to conceptual learning. The research suggested that a process which makes explicit the relevant attributes of a concept facilitates conceptual attainment. Frayer, Fredrick, and Klausmeier (1969) developed a model of conceptual attainment predicated upon these assumptions.

Embodied within the comparison between the two methods (Frayer and Textbook) for defining concepts was an additional factor, the influence organizational patterns of written material exerted on the comprehension process. Since research indicated that poor readers have more difficulty than do good readers in organizing material into comprehensible units both the structure inherent within the Frayer model and the arrangement of concept examples within each method were investigated to ascertain whether these factors affect comprehension.

In analyzing the main effect and interaction of the three independent variables reading ability (good and poor), method (Frayer and Textbook), and arrangement within method (chronological, topical, and reverse chronological) answers were sought to the following questions: (a) Will students

who utilized materials organized according to the Frayer model perform significantly better than students who use materials organized according to the Textbook approach? (b) Will both good and poor readers who use materials organized according to the Frayer model perform significantly better than good and poor readers who employ materials organized according to the Textbook approach? (c) Will arrangement of concept examples within both the Frayer model and the Textbook approach significantly improve comprehension?

To answer these questions 360 ninth grade subjects were selected from two high schools in the suburban area of Pontiac, Michigan. Ninth grade subjects were divided into two reading levels (good and poor) on the basis of their performance on the Gates-MacGinitie Reading Test. The raw score from the test was converted into percentiles for distinguishing between good and poor readers.

In order to determine whether the Frayer model facilitated concept attainment when compared to the Textbook approach, a comprehension test was developed. The scores obtained from the comprehension test were, then, analyzed by the multivariate analysis of variance. As the analysis revealed, there was a significant difference between the good and poor readers who utilized the Frayer model and the good and poor readers who used the Textbook approach. Good and poor readers who employed the Frayer model achieved a significantly higher score on the concept comprehension test. Therefore, it would seem that material organized according to the Frayer model facilitated comprehension for both good and poor readers. When the effect of arrangement of concept examples within method was analyzed the results showed that a significant difference did not exist between either arrangement within method or arrangement within ability level.

As the results of the study have indicated, both good and poor readers who utilized material organized according to the guidelines established by the Frayer model received significantly higher comprehension scores than did good and poor readers who employed material organized according to the Textbook approach. However, arrangement of concept examples within both the Frayer and Textbook methods had no affect on comprehension scores.

# Chapter 1

# RATIONALE

## Introduction

Over the past years one of the major problems confronting social studies teachers has been the inability of their students to comprehend the concepts presented in textbooks. Social scientists who have researched this problem have attributed it to insufficient information in textbooks. Ratcliffe (1966) and Johnson (1967) both demonstrated that fifth, eighth, and eleventh grade social studies textbooks do not adequately provide the details, examples, or insights needed for students to develop concepts about key ideas that teachers insist should be part of their repertoire of knowledge when they complete a course in social studies. Another weakness of social studies textbooks that employ inadequate details, examples, or insights is that they cause the student to formulate overgeneralizations, which further impedes the comprehension of concepts, as Lee and Anderson (1970) point out in their very comprehensive study of new approaches to the teaching of social studies. In their study they attempted to determine how students define concepts that have been identified as being important by both authors of textbooks and teachers. The results of the study indicated that students who were tested in the spring of the year, after most of the course work had been completed, had an inadequate knowledge of concepts deemed important. The implication of this study is important,

because it suggests that textbooks are not providing sufficient information for students to develop adequate concepts.

Similar results have been obtained by educational psychologists investigating conceptual learning. In an effort to improve conceptual learning, Blount, Klausmeier, Johnson, Fredrick, and Ramsay (1967), Frayer (1970); Frayer and Klausmeier (1971); Scott (1970); and Smuckler (1967) identified several instructional variables that apparently facilitate concept comprehension. These studies show that a process which makes explicit the relevant attributes (intrinsic dimensions) of a concept and directs the student's attention toward the relevant attributes of a concept facilitates conceptual attainment. Frayer, Fredrick, and Klausmeier (1969) developed a model of conceptual attainment predicated upon the research conducted in this area. The Frayer model of concept attainment defines concepts according to several dimensions: relevant attributes, irrelevant attributes, examples, non-examples (lacks one or more relevant attributes), and relationships established between other concepts. Therefore, if social studies material was rewritten according to the procedure utilized by the Frayer model to define concepts, conceptual attainment might be improved.

However, conceptual learning strategies overlook an additional factor that also contributes to inadequate comprehension for some readers. In their research Cromer and Wiener (1967); Oaken, Wiener, and Cromer (1971); and Smith and Hesse (1969) have pointed out that a mismatch between the reader and the organizational pattern required for comprehension of some written material may contribute to insufficient comprehension. Research into the differences between good and poor readers seems to indicate that

poor readers have more difficulty than do good readers in organizing material into comprehensible units. Therefore, if improved comprehension of concepts is the objective of both social scientists and educational psychologists, and if textbooks are to be the major means of disseminating this information, differences in the ability of good and poor readers to organize material must be considered.

It would appear that two basic problems confront students attempting to adequately comprehend concepts presented in social studies textbooks: (1) insufficient explanation of concepts, and (2) insufficient organizational patterns of written material, i.e., the style in which the material is written makes it difficult for poor readers to discern main ideas, cause-effect relationships, time-space relationships, or any other information the writer seeks to convey through print to the reader. It would seem, then, that an approach such as the Frayer model of concept attainment when adapted to social studies material might benefit good and poor readers in two ways. First, the Frayer model employs specific guidelines for defining concepts, i.e., it stipulates a specific procedure by which concepts must be defined. As was stated earlier, these guidelines are broken down into teachable components, e.g., intrinsic characteristics and hierarchical relationships with other concepts.* The rationale for developing such a process is predicated upon research related to concept attainment. Second, the Frayer model of concept attainment by virtue of the structure inherent within its guidelines for defining concepts imposes external structure upon the written organizational pattern of material. Structure in relationship to the Frayer model is, then, defined as those elements

*For a more detailed description of these guidelines see pp. 22-24.

which require the writer to include the following components within his organizational structure: (1) the listing of relevant attributes, (2) the inclusion of examples and non-examples, and (3) the arrangement of concepts in topical order. Therefore, not only would the Frayer model seek to eliminate the insufficient explanation of concepts by establishing specific guidelines for defining concepts, but it would also impose external structure upon the material thus making it easier for poor readers to better organize material into comprehensible units.

Therefore, the objective of this study is to determine whether material rewritten according to the guidelines established by the Frayer model for defining concepts will significantly improve comprehension for both good and poor readers when compared to the approach utilized by many social studies textbooks in defining concepts, i.e., providing only a definition and one example of a concept.

The rationale for Chapter I has been divided into four sections. The first section is concerned with establishing an operationalized definition of the two terms dealt with in this study, "concept" and "comprehension."

The second section which is divided into two parts deals with the problem of inadequate concept comprehension. Part one examines the organizational structure of social studies textbooks in an effort to determine whether: (a) adequate definitions are provided; (b) the cognitive level, as defined by Piaget, is appropriate for the intended grade level; and (c) the level of reading is too difficult for the designated grade level. The second part of section two examines the effect organizational patterns of written material have upon the comprehension of good and poor readers.

The third section of the rationale statement deals with an alternative to the textbook approach, the Frayer model of concept analysis. The Frayer model is examined to determine whether its systematic analysis of concepts will facilitate comprehension for both good and poor readers. The remaining section states the hypotheses to be examined in the study.

## Definition of Terms

Extremely important to any educational research is the definition of the terms involved in that study. Therefore, both "concept" and "comprehension" are defined according to their use in this study. While there are varied interpretations as to what constitutes a concept, the definition selected for this paper is that of Bourne (1966) and Klausmeier, Sterrett, Frayer, Lewis, Lee and Bavry (1969). As Bourne states: "A concept exists whenever two or more distinguishable objects or events have been grouped or classified together and set apart from other objects on the basis of some common feature or property characteristic of each (p. 1)." Another important "dimension" in identifying a concept was stated by Klausmeier and others as:

> Objects and events may be put into the same category on the basis of their criterial attributes. This category is usually given a name. In turn, the word that represents the category may be defined in terms of the critical attributes of the category. . . Concepts may be defined in terms of their intrinsic dimensions or attributes. The dimensions or attributes are abstracted as being alike or the same in otherwise dissimilar objects and thus define the concept from an objective point of view. For example, the attributes which allow some objects to be classified as oranges and others as lemons are size, color, shape, and taste (p. 3).

As these two definitions illustrate, an object is defined on the basis of its critical attributes. Therefore, a teacher who wishes to employ such

a model of concept analysis in the classroom would have to adopt a strategy which analyzes a concept on the basis of its critical attributes.

Another important term that must be defined is "comprehension." Otto, McMenemy, and Smith (1973) state that in comprehending a written message the reader must do more than react to the individual words that constitute the message. In their opinion, "To comprehend a reading selection the reader must organize his reading in a way that places the ideas in the selection in their proper relationship to each other" (p. 141). Reading comprehension is, then, the ability to discern the interelationship of ideas. This process causes the reader to bring meaning to the print. Most experts would agree that getting the reader to discern the interelationship of ideas requires him to function at various cognitive levels (Barrett, 1968; Bond and Wagner, 1966; Bruner, 1960; Dechant, 1964; Herber, 1970; Otto, McMenemy, and Smith, 1973; and Russell, 1956). Whether one believes comprehension is comprised of three levels of cognitive behavior as defined by Herber (1970) or four levels of cognitive behavior as defined by Barrett (1968) is not important. What is important is the realization that comprehension involves more than literal understanding of what is read. Comprehension must also include other cognitive behaviors such as analyzing, applying, or evaluating. Comprehension in this study is defined as the ability of the reader to understand the general message, analyze the interelationship of ideas, apply those ideas to different situations, and evaluate the importance or significance of the new ideas being presented in the reading selection.

## Inadequate Comprehension of Concepts

Inadequate comprehension of concepts represents one of the major problems confronting social studies teachers. In attempting to determine what factors contribute to insufficient comprehension two areas are examined. The first deals directly with the organizational structure of social studies textbooks, and the second deals with the much broader topic of organizational patterns of written material.

### Inadequate Organization of Social Studies Textbooks

Research suggests that a number of factors have contributed to inadequate presentation of concepts in social studies textbooks: (1) the approach utilized by textbooks to define concepts; (2) the relationship cognitive level of development, i.e., one's ability to deal with various levels of abstraction, has to comprehension of concepts, and (3) the relationship "readability" of social studies textbooks has to the comprehension of concepts. Each of these factors will be examined to determine the extent to which they contribute to the inadequate comprehension of concepts in social studies textbooks.

#### Insufficient Definition of Concepts

While research into the methods employed by social studies textbooks in defining concepts has been limited, a number of studies suggest several factors which appear to affect concept comprehension. Ratcliffe (1966) and Johnson (1967) in their review of fifth, eighth, and eleventh grade history textbooks concluded that one of the primary causes of misconception is the insufficient presentation of definitions, details, and examples. They felt that such superficial coverage makes it difficult for students to

form or develop concepts about key ideas that teachers insist should be part of their repertoire of knowledge when they have completed the course. Dimitroff (1961) in an earlier study found the same to be true with twenty-seven intermediate level social studies textbooks she reviewed. She selected fifteen social science generalizations which had been judged important by scholars and concluded that the presentation of the fifteen concepts in these textbooks provided "inadequate" information. In most cases the concepts were presented in one of two ways: either (a) the definition was stated and one example given, or (b) the definition had to be inferred from the example presented by the textbook.

As these studies indicate, one of the primary difficulties students encounter when utilizing social studies textbooks appears to be the cursory presentation of concepts. The reader is not provided with sufficient detail and in many instances he is required to infer definitions. The latter may place the poor reader at an even greater disadvantage when one considers the complexity of a skill such as inference. The position that superficiality of concept analysis helps contribute to inadequate comprehension gains further support when one reexamines the study conducted by Lee and Anderson (1970). They attempted to determine how juniors who were completing a course in American history would define terms previously covered in their course. The test was administered to two regular and two honor classes. Nearly one-half of the regular students and one-fifth of the honor students had formulated overgeneralizations which Markle and Tiemann (1969) attribute to failing to discriminate non-examples (lacks one or more characteristic that make up the concept)* from new examples.

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*For a more detailed description see pp. 23-24.

For example, when students overgeneralize a concept such as "states' rights" they have included concepts within the category states' rights which do not belong. In other words their understanding of the concept exceeds the definition causing them to include non-examples within their definition of the concept. Lee and Anderson concluded that part of the students' inability to acquire a proper concept could be attributed to the method in which material is presented in most textbooks. Such a desultory approach to the presentation of concepts led Greenblatt (1962) and Curry and Hughes (1965) to conclude that one of the primary factors contributing to student discontentment with social studies has been the inadequate explanation of terms; therefore, much that was discussed in the textbooks had little meaning to them. As the implications of these studies suggest, social studies material should be rewritten to include a more detailed explanation of concepts.

Disregard for Cognitive Level of Development

A second factor research seems to have attributed to inadequate comprehension of concepts is the cognitive level of material. Briefly, Piaget has delineated four stages of cognitive development: sensorimotor, preoperational, concrete operations and formal operations. Although these stages are identified with certain age ranges, the ranges are by no means precise and binding, merely approximate. They are also continuous; one should not assume that one stage of development ends and then another begins, but rather that at each stage other capabilities are beginning to be actively acquired. There are qualitative changes in cognitive processes at successive stages (Klausmeier & Ripple, 1971).

Piaget's findings and the related research of many others in America and in England are considered vitally important by individuals and groups preparing curriculum materials and instructional programs. To determine whether Piaget's theories are applicable to social studies, several studies have been conducted. Goldman (1962) had students ranging in age from eleven to sixteen read three historical passages. Each student answered ten questions on the three passages. The results of the study indicated that the replies given by the students could be categorized according to Piaget's three highest levels of cognitive development. Further analysis disclosed that children were reasoning at a much lower level than had been expected. For example, it was found that formal operational thinking was not reached until the chronological age of 16:2 to 16:6 years instead of 11 to 15 as Piaget's experiments had suggested. Part of the discrepancy might be attributed to the dissimilarities in the two types of experiments. In his experiments, Piaget dealt with concepts that had precise definitions, e.g., triangles, squares, or units of exact measurements, while Goldman's study dealt with concepts that are less precise and vary from one period to the next; e.g., the concept "king" does not mean the same in the Sixteenth Century as it does in the Twentieth Century. Therefore, the fact that in Piaget's experiments the child did not have to cope with the variability in definition might help explain the age discrepancy in the two relative levels of attainment reported.

Coltham (1960) conducted a similar study in which he examined the development of six concepts utilized in history. Students were asked to verbally define "king," "early man," "invasion," "ruler," "trade," and

"subject." In addition they were asked to draw them. Coltham was able to demonstrate a relationship between the child's age and his level of comprehension. Most students were only able to provide a very concrete definition. The results were congruent with those of the Goldman study. According to both studies, children seem to progress through a series of cognitive stages which directly influence their ability to comprehend concepts. These studies indicate that students from grades three through eight are at a very concrete level of operation.

Wood (1964), like Coltham and Goldman, investigated students' knowledge of historical concepts. He was able to identify four categories of answers in ascending order of maturity. As Wood pointed out, students at the lower end of the continuum tend to focus upon irrelevancies and nonessentials while those at the upper end focus upon more concrete aspects and abstract qualities of the concept.

Further support for this position has been provided by Watts (1965) and Arnsdorf (1963a, 1963b). In his study Watts utilized five different methods of teaching geographic concepts. The findings were consistent with Piaget's theory: the more concrete the method, the greater the comprehension. Arnsdorf on the other hand studied students' ability to comprehend indefinite space and time concepts at the intermediate grade level. He found that social studies materials rewritten to reduce or eliminate indefinite expressions had little effect upon the students' comprehension of social studies materials. This seems to imply that readability of the material is not the only important variable to consider when

attempting to determine whether a student can comprehend it. In examining the results of the previous studies in relationship to the conclusions reported in the Arnsdorf study, it appears that when the appropriate level of social studies material is being determined for classroom utilization, the student's level of cognitive development should be considered. For example, if the concept "government" were utilized with fifth grade students, it would be highly unlikely that they could comprehend the abstract nature of the concept; e.g., democracy compared with socialism. These concepts are beyond the students' level of cognitive development. At this level it would be more beneficial in terms of comprehension to examine the more concrete aspects of government; e.g., the locations of various governments or the type of officials who operate them.

Several inferences can be drawn from these studies. First, conceptual development of students appears to progress through a series of identifiable stages. This means that if the student is required to read material that is beyond his level of cognitive development, it is doubtful whether he is capable of comprehending it because such a task might require abilities he does not yet possess. Therefore, to eliminate the possibility that the cognitive level of material is not a factor affecting reading comprehension, some thought has to be given to the types of concepts utilized at various grade levels.

Second, students have a limited concept of history and time and need to comprehend this aspect before attempting to deal with more abstract concepts. Therefore, a requisite to adequate concept comprehension is the student's ability to understand that concepts often vary according to their

historical time period. For example, one's concept of civil rights is altered as the concept changes from one historical period to another; and, unless the student can conceptualize this change in time, it is difficult for him to comprehend many concepts presented in an historical context.

Readability Level of Social Studies Textbooks

The third factor related to the comprehension of concepts is the readability level of textbooks. Lee and Anderson (1970), operating under the assumption that one of the major weaknesses of social studies textbooks has been their level of difficulty, applied the Fry Readability Formula to fifth, eighth, and eleventh grade social studies textbooks. After utilizing a table of random numbers to identify the pages, the authors applied the formula to the first one hundred words in the first complete paragraph on each of the identified pages. The passages which they analyzed contained more than 57,820 words. The results are as follows:

Fifth Grade---average readabilities for the five books examined 7.0; 7.0; 7.0; 8.0; 8.5.

Eighth Grade---average readabilities for the five books examined 8.0; 9.0; 10.0; 10.5; 11.8.

Eleventh Grade---average readabilities for the six books examined 11.6; and five books each of which averaged 13.0.

As one can discern from these results, readability, depending upon the book selected, could range from the grade level for which it is intended to three and a half years above grade level. Therefore, the reading level alone would be enough to prevent many students from grasping important concepts presented in social studies textbooks.

Dulin (1970) illustrated in his study that the range in ability within the "average" classroom, which he defined as those who fall between the 25th percentile and 75th percentile on the Nelson-Denny Reading Test (1960), is an important variable to consider. A teacher could expect a range in reading ability at the 10th grade from 8.6 to 12.0, 11th grade 9.3 to 13.1, and from 9.9 to 14.0 in the 12th grade. Dulin extrapolated the results in terms of time required to read a chapter of average length in an eleventh grade history textbook. His results indicated that "the 90th percentile reader (B range student) will be finished in only 28 minutes, while the 10th percentile reader (D range reader) must plow on for a full 71 minutes (p. 608)."

The results of Dulin's study, combined with those of Lee and Anderson, have important implications. First, the wide range of ability in the average classroom makes it unlikely that a large percentage of the class could read an eleventh grade history textbook without assistance from the teacher. Second, reading level alone would be enough to prevent many students from comprehending the material even if all the other variables which have been previously mentioned were equal. Establishing a realistic reading level, then, becomes a very important factor to consider.

To recapitulate, the reader is, then, confronted with several problems when he attempts to comprehend concepts that are presented in social studies textbooks. First, he must attempt to overcome the inadequate presentation of many concepts. Textbooks have not provided enough details, examples, or insights, to assist good or poor readers with their comprehension of concepts. Therefore, in order to aid both the good and poor readers by making the comprehension process less arduous, material has to

be rewritten. This reorganization of material must make it possible for the reader to discern more accurately the concepts the writer wishes to convey through print. Second, the material must take into account the students' level of cognitive development. Abstract concepts presented before the reader is able to comprehend them only augment the confusion created by the unsystematic presentation of the conceptual content. Third, the readability level of the material should be within the range of the student's capability. If a student cannot read the material, obviously there is little hope that he will comprehend it, despite the fact that the material presents concepts in a more comprehensible manner.

Organizational Patterns of Written Material

In the previous section inadequate features of social studies textbooks were discussed in relationship to the problem of insufficient concept comprehension. The purpose of this section is to determine what effect organizational patterns of written material have upon comprehension of good and poor readers. A number of studies have questioned whether poor readers have more difficulty organizing material than good readers (Ausubel, 1960; Ausubel & Fitzgerald, 1961; Cromer and Wiener, 1967; Oaken, Wiener, & Cromer, 1971; Proger, Taylor, Mann, Coulson, & Bayuk, 1970, and Smith & Hesse, 1969).

In their consideration of this problem Wiener and Cromer (1967) stated the following:

> Some difficulties in reading comprehension can be accounted for in terms of mismatch between the readers' typical patterns of linguistic organization and the organizational patterns required for comprehension of the particular written material. It is held that this kind of poor reader has developed language patterns such that his organization and elaboration

> of the printed language is different from that of the good reader. This formulation implies that either (a) a change in the way in which material is organized, or (b) a change in one's response patterns to such material results in improved reading comprehension (p. 72).

The important point made in the above quote is that the poor reader seems to encounter problems with comprehension in two ways: a mismatch between the reader's typical pattern of linguistic organization (internal), or the organizational patterns required for comprehension of the particular written material (external). While considerable research has been done in both areas, this study will deal only with how a change in the organization of the material might help poor readers improve their comprehension. Since it is unlikely that a secondary social studies teacher will have the time or an adequate knowledge of the reading process to work individually with each poor reader in an attempt to correct inadequate linguistic organization, it seems more reasonable to assume that a process which attempts to correct the organizational inadequacies of written material would be easier to implement within a secondary classroom. Such a procedure would not require a detailed knowledge of the reading process.

Research regarding the organization of reading material has gone in two directions: utilization of an advanced organizer for improved comprehension, or reorganization of the material extrinsically. Both approaches, however, are dealing with the same problem, how best to improve reading comprehension.

## Advanced Organizers

Ausubel (1960) hypothesized that by utilizing an advanced organizer in a formal learning situation he could improve both learning and retention. This would be accomplished by providing the reader with a general

idea of what was to be covered in the reading selection. In his experiment Ausubel employed two types of advanced organizers; the first one embodied key concepts about the passage and the second one contained only historical background information. The experiment yielded two significant results: (a) the advanced organizer which contained only the historical background information was less effective in improving learning and retention than was the advanced organizer which embodied key concepts, and (b) the advanced organizer which utilized the key concepts seemed to be more effective in assisting readers with the organization of material. Two inferences can be drawn from the Ausubel study: first, comprehension appears to be improved when material is reorganized with the specific purpose of assisting the reader; and second, the additional structure provided by the advanced organizers seems to assist some readers in the retention of information.

In a second study Ausubel and Fitzgerald (1961) examined the advanced organizer and its ability to provide the reader with a basis for discriminating new concepts that might be confused with previously learned concepts. Ausubel and Fitzgerald postulated that, by providing both the conceptual background and a basic structure for the discrimination between old and new concepts, comprehension would be improved. They found that subjects improved their comprehension when major differences and similarities were alluded to. But, as in the first study, the advanced organizers seemed to function best with those students who were weak in verbal ability. In other words, it appears that poor readers have more difficulty organizing material into comprehensible units than do good readers; and that by

assisting them with more structured order, comprehension is facilitated.

The major weakness with these two studies is that they were conducted with upper level college students. It is difficult to generalize from a college population since most poor readers are eliminated before reaching this level. Nevertheless, the studies do illustrate a very cogent point in that those who seem to have difficulty organizing material benefit the most from the advanced organizer.

The research conducted by Proger et al. (1970) and Smith and Hesse (1969) is even more relevant to the present study, because they dealt with high school students. Proger et al. were intereste in comparing four different methods of advanced organization: (a) a paragraph abstract (b) an enumerated sentence outline (c) a true-false pretest, and (d) a completion pretest to determine whether one or a combination of methods might be more effective in assisting students with prior organization of material. Their results indicated that the sentence and paragraph abstract method proved to be significantly better than the two methods utilizing the two forms of pretest. It appears that the paragraph abstract and sentence outline made the readers more aware of the general organization of the material, which resulted in improved comprehension. This, then, would be consistent with the findings of the previous studies. The true-false and completion tests apparently only examined the reader's knowledge of the material in the selection, while the sentence outline and paragraph abstract actually acquainted the reader with material that would be covered in the story. A second result that also paralleled earlier studies was the fact the concept facilitation occurred only for those students who appeared to have difficulty organizing the material.

Smith and Hesse (1969) investigated the effects of a cognitive organizer upon comprehension and attitudes of good and poor readers. The subjects were eleventh grade students. Each student read a selection dealing with a social studies topic from the Science Research Associate Reading Laboratory, IVa. Before the reading task was undertaken, a cognitive organizer was utilized by the experimental group to provide an "organizational framework for their reading without disclosing the most significant details, possible inferences, or the main idea (Smith & Hesse, 1969, p. 170)." The authors concluded that the cognitive organizer had a dual effect upon poor readers. It seemed to assist them in their organization of the material, because the experimental group did better than the control group in determining the main idea of the selection. Secondly, the cognitive organizer seemed to provide the poor readers with a more positive attitude toward the selection which could possibly be attributable to the fact that once they could comprehend, reading became more enjoyable. The cognitive organizer did not seem to affect the good readers who appeared to possess a reasonably well-developed style of organization. The important implication here is that comprehension is enhanced if the reader can organize his material; and, since the poor reader appears to have some difficulty with this skill, the material that imposes order for the poor reader might be more successful in facilitating the comprehension process.

While the cognitive organizer appears to play a significant role for the poor readers, the same effect could be accomplished by providing more external organization of the material. The second group of studies deal more directly with this problem. Oaken et al. and Gagne and Wiegard have

investigated methods for improving reading comprehension by manipulating the material rather than stimulating pre-reading activities through the utilization of the advanced organizer.

External Organization of Material

In their study Oaken, Wiener, and Cromer (1971) dealt with the poor reader's ability to organize words into thought units. The premise of their study was based upon earlier investigations conducted by Wiener and Cromer in which they divided comprehension into two segments, word identification skills and organization of the material by the reader. According to this theory comprehension may be poor when there is (a) poor identification and poor organization, (b) good identification and poor organization, or (c) poor identification and good organization. The purpose of their study was to assess the relationship of identification and organization for both good and poor readers. While the results of the study indicated that there was no direct relationship between identification and comprehension for any group of readers, the results did support the argument that an appreciable number of poor readers' comprehension difficulties may be attributed to the manner in which they organize their input. Even when readers received training in word identification, they still did poorly, because they were not able to organize "their input into certain efficacious patterns . . . (p. 77)." Another important inference that can be drawn from this study is that when poor readers are presented with material that is well organized, their comprehension equals that of the good readers. Apparently, then, the material is one variable affecting comprehension for poor readers.

The Gagne and Wiegard (1970) study provides further support for the theory that the context in which ideas are presented during learning has a significant facilitative effect on retention. In this study Gagne and Wiegard attempted to determine whether three different arrangements of reading material would affect retention. The three conditions utilized in the study were (a) superordinate context (introduction by means of topic sentence), (b) coordinate context (related ideas), and (c) unrelated context. On the basis of an earlier study (Gagne, 1969), they hypothesized that the superordinate arrangement of material would assist in the organization of input and its retention, because they stated:

> Such findings have been interpreted as supporting a theoretical position which makes meaningful learning and retention dependent on the pre-existence of more general cognitive structure under which the ideas represented in newly presented propositions can be subsumed. In this theory, the provision of context material is conceived as having the effect of mobilizing anchoring ideas of cognitive structure, thus facilitating the subsumption process: an effect which is reflected in heightened learning and retention (p. 406).

Once the students read the material, organized according to Gagne's theories, they were each given a multiple choice comprehension test. The results of this study were very similar to Gagne's earlier findings in that the superordinate context was superior in retention to the coordinate context, while the unrelated context was inferior to both the superordinate and coordinate. Once again it appears that by imposing some structural order upon the material, learning can be facilitated. The implication of this study is important because, as Lee and Anderson illustrated earlier, textbooks, through their organization, do little to facilitate

the learning process. Therefore, by structuring material in a superordinate-subordinate relationship, it might be possible to improve retention. A further implication of this study would seem to be that whether organization is prior to the reading selection or is incorporated within the material makes little difference. The important point is that either organizational procedure appears to facilitate comprehension.

As these studies dealing with organization have revealed, there appears to be some difference between good and poor readers' ability to organize material into comprehensible units. As the research has suggested, there are two alternatives: either (a) to rewrite material so that concepts are more explicitly defined, or (b) to utilize an advanced organizer. This study will investigate the effect the rewriting of materials has upon comprehension. The Frayer model of concept attainment has been selected to test this theory, because it has incorporated a procedure which appears to define concepts more explicitly.

## An Alternative to the Textbook Approach

### Definition of the Frayer Approach to Concept Analysis

Frayer, Fredrick, and Klausmeier (1969) have outlined a procedure which might possibly improve the comprehension process for both good and poor readers who utilize social studies textbooks. Their model of concept classification could be employed both to analyze and to test concept attainment. The method proposed by Frayer et al. classifies concepts according to several dimensions: relevant attributes, irrelevant attributes, examples, non-examples, and relationships established between other concepts.

The first means used to clarify a concept is by its relevant attributes. Relevant attributes are the intrinsic qualities which are common to all examples of the concept. For example, the relevant attributes of a globe would be that it is both spherical and a representation of the earth.

A second means of clarifying a concept is by its irrelevant attributes which can be defined as the qualities of a specific concept that are not endemic to all concept examples. For instance, an irrelevant attribute of globe would be size. As Tabachnick, Weible, and Frayer (1970) state:

> One approach used to determine the relevant and irrelevant attributes of a concept was to think of as many different examples of the concept as possible. Those characteristics common to all of these examples were usually relevant attributes of the concept. Characteristics which occurred only in particular examples were irrelevant attributes of the concept. As an example of this type of approach, think of the concept "delta." A delta is always a type of river mouth where land was formed when soil was deposited from that river. The relevant attributes would be that a delta is part of a river mouth, island formed by the river, and grows larger as more soil carried by the river is deposited. Every delta in the world would share these characteristics. However, not every delta in the world is at the end of the Mississippi River, not every delta has good land for growing cotton, not every delta is exactly fan shaped: therefore, these characteristics of location, kind of soil and shape are irrelevant attributes of the concept "delta" (pp. 15-16).

A third means of clarifying a concept is to utilize non-examples, a non-example lacks one or more relevant characteristics. For instance, in the concept "globe" a wall map could be employed as a non-example, because it would lack the relevant characteristic of spherical shape. The function of a non-example is to help determine whether the student has accurately comprehended the concept by offering him a plausible

alternative which requires the student to discriminate the concept upon the basis of its intrinsic characteristics.

A fourth means of clarifying a concept is to determine the relationship it has with other concepts. For example, "Jacksonian Democracy" and "democracy" are related in that they deal with the concept "government." A democracy is a specific form of government which means that the concept government is in a superordinate relationship with both concepts. However, Jacksonian Democracy is different from democracy in that it pertains to a specific period in history and is associated with specific changes which obtained more rights for the people. Democracy is then a superordinate, the more general concept, while Jacksonian Democracy, the subordinate concept, is the more specific. By establishing a relationship between concepts, it is possible to determine a hierarchical structure, and, therefore, provide a more systematic means for ordering concepts and establishing relationships between concepts.

Value of the Frayer Model in Relationship to Comprehension

Would developing material based on the Frayer model of concept attainment help improve reading comprehension? As the earlier review of the literature indicated, there are several weaknesses that prevent students from comprehending concepts in social studies materials: (a) inefficient means of presenting concepts, (b) conceptual level of the material, and (c) organization of the material. The Frayer model of concept attainment seeks to correct these inadequacies by (1) presenting a more systematic means for defining concepts, (2) selecting concepts based upon the child's background experiences, and (3) imposing a more structured organizational pattern on written material.

Systematic Means of Analyzing Concepts

The Frayer model, as was illustrated in the preceding section, is a very systematic approach to concept analysis. Concepts are defined according to their critical attributes. Upon the basis of the critical attributes examples and non-examples are generated. In addition to providing the reader with both examples and non-examples the concept is placed within a superordinate-coordinate-subordinate relationship. By utilizing such a systematic approach to concept analysis, comprehension can further be facilitated in two ways: first, it imposes a more structured organizational pattern upon material; and second, it aids the reader in his ability to discriminate attributes.

More Structured Organization of Material. Research has suggested that one of the contributing factors to inadequate comprehension for poor readers is organization of the material. The present method employed by most social studies textbooks , the presentation of a general definition of the concept followed by only one example, makes it difficult for poor readers to comprehend the material. Through the utilization of a systematic approach similar to the one outlined by Frayer et al., which identifies the intrinsic qualities of a concept and then presents them within the framework of a hierarchical structure, it might be possible to assist the reader in imposing order upon the material much in the same manner as advanced organizers assist poor readers. Not only would the material provide more external structure, i.e., those elements (the listing of relevant attributes, the inclusion of examples and non-examples, and the arrangement of concepts in topical order) of the Frayer model that require the writer to adopt a more structured organizational pattern

within material, one method proposed by Wiener and Cromer for improving reading comprehension, but it also provides a more systematic procedure for defining concepts, an essential quality for improving concept attainment identified by Klausmeier et al.

Improved Ability to Discriminate Attributes. Klausmeier (1971) has stated that one of the first operations in acquiring a concept is the ability to discriminate and label the attributes of that specific concept. Several studies (Fredrick & Klausmeier, 1968; Kalish, 1966; Klausmeier & Meinke, 1968; and Lynch, 1966) have shown that a procedure which makes explicit the critical attributes of a concept does facilitate conceptual attainment.

One of the purposes of the Fredrick and Klausmeier study was to determine whether instructions which directed the students to attend to the defining attributes would facilitate conceptual learning when compared to a procedure that merely presented the concept without directing the student toward the attributes of the concept. The results revealed that the group receiving specific instruction to attend to the attributes of a concept performed significantly better. It would appear, then, that by directing the students' thinking toward the distinguishing attributes of a concept, comprehension might be facilitated. The implication of this study would seem to be that a process which directs the students' thinking toward the critical attributes of a concept, as the instructions in the Fredrick and Klausmeier study did, comprehension could possibly be improved.

Kalish's study was very similar to that of Fredrick and Klausmeier's in that one of the variables in her experiment dealt with the explicit identification of critical attributes. The procedure and results were the same. The subjects who received information about the nature of the concept to be attained obtained significantly higher scores than those subjects who did not receive specific instruction to attend to the critical attributes.

The implications of these studies are important, because they suggested that a procedure which directs the student's attention toward the critical attributes of a concept facilitates the learning of that concept. The Frayer model of concept attainment contains one very important variable that research seems to have identified as an important factor in the comprehension process. Her model not only identifies concepts by focusing upon the intrinsic characteristics of the concept, but it also utilizes a systematic analysis of concepts. This process seems to direct attention toward the critical attributes. Such a procedure has already been shown to enhance comprehension. It would appear, then, that material which directs the student's attention toward the critical attributes of a concept and utilizes a systematic procedure for defining concepts would improve comprehension of concepts.

Learning Theory

Further support for the Frayer model of concept attainment is derived from its adherence to important principles of learning theory. Research in educational psychology has shown that it is easier for a student to comprehend an event or concept if the example or idea is

related to his immediate background or experience. For example, if the concept "diplomacy" were being introduced, the student would have less difficulty if the teacher could relate it to an event in the students' immediate background, e.g., drawing an analogy between the diplomacy involved in settling territorial disputes between nations and the diplomacy involved in settling territorial disputes between street gangs. The Frayer model of concept attainment is predicated upon the same premise, in that Frayer recommends that examples of the concept be within the student's experience. For instance, it would be useless to utilize the example "street gang diplomacy" if the student had no concept of street gangs. In this situation the example and the concept are both unknown to the student. Such a procedure completely negates the purpose of an example, which is to help the student grasp the concept not further confuse him. Essentially, this is what many social studies textbooks are doing when they introduce a new concept in an unfamiliar period in history. Pfannkuche (1971) adds further insight into the problem created by the traditional textbook approach of utilizing two unknown variables in introducing a concept when he states:

> As is well known, it is important for a student to move, on an intellectural level, from some concept or idea with which he is familiar to one with which he is unfamiliar. If this pattern were to be reversed for a student, which the present chronological method does by moving from, in a student's view, the poorly understood past to the relatively better understood present, the whole of his educational experience would be built on very shaky ground. The resulting confusion could and does grow until intellectual chaos or student stupor reigns supreme in the class. Perhaps here lies the reason why so many students find their history class to be a "drag" (pp. 243-244).

The teaching of history in a sense has perverted the learning of concepts, because instead of grouping events on a conceptual basis, as suggested by Dunlap (1971), most historians have organized material chronologically; therefore, historians often find themselves hemmed in by the basic form of their discipline: chronology. Instead of discussing a concept like states' rights under one topic, it is presented three or four times in the course of a year; e.g., during the Confederation Period, the Supreme Court decisions of the Marshall Era, the Civil War Period and in the 1960's with conflict over integration. As an alternative to this process, the teacher could select important concepts to be covered in the course and arrange them in a structured sequence beginning with the present and working backwards in reversed chronology. For example, if the concept "civil disobedience" were to be presented, the teacher would begin by defining it with an example from the present and gradually add other examples which would be drawn from other periods in history. Such an approach would not only increase the comprehension of concepts by working from the familiar to the unknown, but it would also be more in keeping with the Frayer model of concept analysis since it recommends presenting the first concept example within the reader's background of experience.

## Rationale for Hypotheses

To recapitulate, research related to inadequate comprehension of concepts seems to suggest that the present approach utilized by most social studies textbooks is insufficient. In order to maximize the comprehension

of concepts for both good and poor readers the following variables would have to be controlled: (a) readability level of the material, (b) cognitive level of the material, and (c) organization of the material. Therefore, this study will test the hypothesis that improved concept attainment will result for both good and poor readers when a method that employs a systematic strategy for analyzing concepts is utilized.

First, based upon the review of the literature it would appear that reading strategies of good and poor readers are different (Cromer & Wiener, 1966; Oaken, Wiener, & Cromer, 1971; and Smith and Hesse, 1969). Therefore, a systematic presentation of concepts should help impose a more ordered structure on material. The model of concept analysis developed by Frayer et al. would provide the methodical approach necessary to supply the additional structure required to assist the poor reader. This approach should also perform another vital function for improving reading comprehension. Since the Frayer model is a more systematic approach, a quality greatly lacking in most social studies textbooks, it should also assist the good reader in formulating a more accurate concept. As was pointed out earlier (Dimitroff, 1961; Johnson, 1967; Lee & Anderson, 1970; and Ratcliffe, 1961), this is one of the more serious deficiencies of the method presently being employed by many textbooks. A procedure that defines the concept in succinct terms, identifies relevant and irrelevant attributes, and arranges the concepts in a superordinate-coordinate-subordinate relationship would appear to be superior to a technique that requires the student to either formulate a concept from an ambiguous definition or infer the meaning from previously stated information. Therefore, it would seem that poor readers would benefit from the Frayer model in two ways: first, from the imposed structure; and second,

from the systematic analysis of concepts. The Frayer model should also benefit the good readers in ascertaining a more accurate concept since, as Ratcliffe (1961) revealed, even good readers have difficulty formulating a precise concept on the basis of the information presented in the many social studies textbooks.

Second, the organization of social studies materials according to learning theory principles, e.g., begin by introducing a new concept with an example from the child's immediate background instead of concealed within an unfamiliar period of history, should also improve concept comprehension for poor readers. Since poor readers do experience difficulty in organizing material, it would seem that by reversing the traditional chronological approach utilized by most textbooks the reader could be assisted by beginning with events within the background of his own experience and progressing backward withdrawing examples from various periods in history. This would help alleviate the problem the traditional chronological approach has imposed upon itself, e.g., presenting concepts like states' rights five times in one year instead of grouping them under one topic. It would then appear that comprehension could be even more facilitated for the poor reader if the material was not only organized according to the Frayer model, but also presented topically in reverse chronological order. Since good readers have little difficulty in organizing their material, it would seem that they would do equally well on either the chronological or reversed chronological arrangement.

In order to test the following hypotheses several organizational arrangements (topical, chronological, and reversed chronological) will be utilized with both the textbook approach and the Frayer model of concept analysis.

1. Students who utilize material organized according to the Frayer model of concept attainment will score significantly higher on a test of concept comprehension as compared to students who utilize materials organized according to the Textook approach.

2. Good readers who utilize materials organized according to the Frayer model of concept attainment will score significantly higher on a test of concept comprehension as compared to good readers who utilize material organized according to the Textbook approach.

3. Poor readers who utilize materials organized according to the Frayer model of concept attainment will score significantly higher on a test of concept comprehension as compared to poor readers who utilize materials organized according to the Textbook approach.

4. Good readers who utilize the Frayer model with concept examples arranged in topical order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Frayer model with concept examples arranged in chronological order.

5. Good readers who utilize the Frayer model with concept examples arranged in reverse chronological order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Frayer model with concept examples arranged in chronological order.

6. Poor readers who utilize the Frayer model with concepts arranged in topical order will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Frayer model with concept examples arranged in chronological order.

7. Poor readers who utilize the Frayer model with concepts arranged in reverse chronological order will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Frayer model with concept examples arranged in topical order.

8. Good readers who utilize the Textbook approach with concepts arranged in topical order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Textbook approach with concept examples arranged in chronological order.

9. Good readers who utilize the Textbook approach with concepts arranged in topical order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Textbook approach with concept examples arranged in reverse chronological order.

10. Poor readers who utilize the Textbook approach with concepts arranged in topical will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Textbook approach with concept examples arranged in chronological order.

11. Poor readers who utilize the Textbook approach with concepts arranged in reverse chronological order will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Textbook approach with concept examples arranged in topical order.

## Chapter II

## METHOD

As indicated in Chapter I, the purpose of this study was to determine whether concept comprehension for good and poor readers could be improved by adapting material to conform to the guidelines established by the Frayer model of concept analysis.

### Material

The material utilized in the experiment was written by the examiner. In establishing the organizational structure of the material three variables were controlled: (1) the sequence, i.e., whether the material was arranged in chronological or topical order, (2) the number of concept examples, and (3) the procedure for defining the concept, i.e., the Frayer model of concept analysis or the textbook approach. Therefore, the following terms were operationally defined: (a) textbook approach, (b) Frayer model of concept analysis, (c) topical arrangement, (d) chronological arrangement, and (e) reverse chronological order.

#### Organizational Approaches

Textbook Approach. In the textbook approach the historical period determines when a concept is introduced. For instance, if an American history class were studying the Colonial Period, one concept it might encounter would be "government". The term would be introduced by a

definition which would then be followed by one example of the concept drawn from the same historical period. There would be no attempt to make a comparison with other related concepts or non-examples. This approach assumes that the student will establish a formal definition of the concept on the basis of (a) a stated definition, and (b) one example of the concept.

Frayer Model of Concept Analysis. Instead of introducing concepts in order, as in the textbook approach, in the Frayer model they are selected on the basis of the relationship a particular concept has to the topic under study. Concepts, then, are not confined to a chronological period. For example, if the concept "government" is being introduced within the framework of the Frayer model, the definition of the concept is exactly the same as the one presented in the textbook approach, but, in addition to merely stating a definition and providing the reader with one example, the concept is first analyzed in terms of its defining attributes. In the case of the concept "government" the defining attributes could be (a) an organization, (b) usually a political unit, (c) a maker of rules and laws, (d) an enforcer of laws, and (e) a composition of leaders and followers. Preceding the identification of the critical attributes, an example is drawn from the students' previous experiences. In this instance the example "school government" might be used. Other examples of the concept would be selected without regard for any particular order. The concept would also be defined in terms of its irrelevant attributes. In the case of the concept "government" they would be (a) level of organization, e.g., church, school, state, national,

(b) location, (c) what people are ruled, (d) who is leader, (e) how the leader is chosen, (f) what the laws are, and (g) what is right or wrong. A non-example of the concept is then given. The non-example is discussed in terms of why it does not qualify as an accurate definition. Once the examples and non-examples are presented, the concept is further analyzed on the basis of the relationship (superordinate, coordinate, or subordinate) it has with other concepts. For example, "democracy" and "monarchy" are in subordinate relationship with the concept "government," because they are both particular types of governments.

Therefore, in this study the two approaches differed in a number of ways. First, they differed on the sequence in which the concepts were presented. The textbook approach selected concepts on the basis of chronological order while the Frayer model organized concepts on a topic basis. Second, they differed on the number of examples given. The textbook approach utilized only one example drawn from the period under study while the Frayer model provided two examples and two non-examples selected at random. Third, the textbook approach lacked any systematic means for analyzing a concept. The textbook approach merely defined the concept and provided one example while the Frayer model (a) defined the concept according to its relevant and irrelevant attributes, (b) provided examples and non-examples, and (c) placed the concept within a superordinate, coordinate, or subordinate relationship with other similar concepts.

Topical Arrangement. Since topical organization is explicit within the Frayer approach, a control for the effect it might have upon the

reader had to be considered. Therefore, one group of subjects tested received a treatment which had integrated the topical arrangement within the textbook approach. Topical organization merely refers to the arrangement of concepts on the basis of a topic, e.g., "social reform," as opposed to discussing social reform when it occurs during the various periods in American history. When the textbook approach utilizes a topical arrangement, it indicates that the concept was presented within the context of a selected topic. The concepts utilized in this approach, the procedure used to define the concepts, and the number of examples remained unchanged.

Reversed Chronology. Research (Blount et al.; Frayer, 1970; and Frayer and Klausmeier, 1971) in concept attainment has indicated that part of the confusion encountered by students attempting to comprehend concepts is related to the method in which new concepts are introduced in materials. Generally, new concepts are presented within a context that is unfamiliar to the student. Therefore, the student is confronted with two problems: (a) attempting to understand the new concept, and (b) attempting to deal with that concept in the context of an unknown period; e.g., the concept "states' rights" presented in the context of the 18th Century. Reverse chronology, beginning with an example of a concept that is within the reader's backgound of experience, is predicated upon the principle that, by utilizing an example that is familiar to the student part of the confusion can be eliminated. For example, if "states' rights" was the concept, the example would be drawn from the 1970's as opposed to the 1770's. When reversed chronological order was utilized

with the Frayer model, the examples, instead of being randomly selected, were presented in reversed chronological order. Again, if "states' rights" was the concept, examples from the 1970's, 1920's, and the 1860's would be cited in reversed chronological order.

Chronological Order. Since the Textbook approach presents concept examples in chronological order, i.e., the arrangement of concept examples in the historical order of occurrence, control for chronological order within the Frayer model had to be considered. Therefore, instead of selecting examples at random or in reverse chronological order, concept examples were presented in the order of historical occurrence. For instance, if "federalism" and "confederation" were the two concepts introduced to the students, confederation would be presented first, because the Confederation Period chronologically preceded the Federalist Era.

In controlling the variables, sequence, number of concept examples, and the procedure for defining the concepts, the material was organized into six different arrangements; (a) the textbook approach arranged chronologically, (b) the textbook approach arranged topically, (c) the textbook approach arranged in reverse chronological order, (d) the Frayer model arranged topically, (e) the Frayer model arranged in chronological order, and (f) the Frayer model arranged in reverse chronolgocial order. (See Appendixes A through F for examples of each of the six conceptual arrangements).

Concepts

To assure that an adequate evaluation of the Frayer model and the

Textbook approach was made, three concepts were selected for inclusion within each of the six conceptual arrangements. The three concepts utilized in the study were "confederation", "federalism", and "states' rights". Therefore, while the conceptual approach varied, the concepts presented within each of the six conceptual arrangements were identical, i.e., each conceptual arrangement includes examples of the same three concepts.

In identifying the concepts for this study two sources were employed. First, ninth grade American history textbooks were examined to determine what concepts are studied at the ninth grade level; and second, various curriculum guides from several school districts were employed to further determine important concepts that have been identified for the ninth grade level. Definitions for the concepts utilized in this study were based upon three sources: (1) information provided by historians, (2) definitions presented in American history textbooks, and (3) definitions provided by related reference books, e.g., the Dictionary of American History.

Readability

As research conducted by Lee and Anderson (1970) revealed, the difficulty level of many social studies textbooks exceeds the intended grade level by an average of two to three years. As a result, many students are unable to comprehend the subject matter. To assure that the difficulty level of the materials utilized in this study did not contribute to inadequate comprehension, they were written two years below the intended grade level. Since ninth grade students were utilized, the materials had

to be written at the seventh grade level. To determine whether the materials met this criterion, the Fry Readability Formula was selected to judge the readability level of the materials. The Fry Formula judges the readability of materials on the basis of three factors: (1) sentence length, (2) syntactical structure, and (3) difficulty of vocabulary. The Fry Formula (Fry, 1968) was also selected because of its relative ease of administration and its high correlation with other formulas that measure reading difficulty (Botel, .78; Dale-Chall, .94; Flesch, .98; SRA, .98).

Once the method for judging readability had been established, each of the six conceptual arrangements was subjected to the Fry Readability Formula. A 100 word sample was taken after each 500 word segment. This meant that five samples were taken from each selection. The results of the sampling are presented in Table 1 on the following page. As the results of the assessment of readability reveal, each passage was of the same difficulty level as measured by the Fry Readability Formula. Therefore, each passage met the established criterion of two years below the intended grade level.

Minimal Terminal Unit

Readability formulas lack the ability to measure two other variables that have been identified (Hunt, 1965) as factors contributing to the difficulty level of written materials: (1) the number of clauses per sentence, and (2) the average length of clauses per sentence. Therefore, in order to insure that each of the six conceptual arrangements was comparable in terms of both readability level and "sentence complexity" (number of clauses per sentence and the average length of clause per sentence), the minimal terminal unit (T-unit) was employed.

TABLE 1

AVERAGE READABILITY LEVEL OF
THE SIX SELECTIONS*

| | Average No. of syllables per 100 words | Average No. of sentences per 100 words | Estimate of readability |
|---|---|---|---|
| I | 152 | 11.0 | 7.0 |
| II | 146 | 9.9 | 7.0 |
| III | 148 | 11.2 | 7.0 |
| IV | 153 | 11.7 | 7.0 |
| V | 154 | 11.1 | 7.0 |
| VI | 148 | 11.7 | 7.0 |

*Readability determined by the Fry Readability Formula

A T-unit consists of at least one main clause or simple sentence (one T-unit) or a combination of one main clause and one or more subordinate clauses (two T-units, one main clause and one subordinate clause; three T-units, one main clause and two subordinate clauses; etc.). No T-unit contains compound or compound-complex sentences, because such units would contain more than one main clause. By applying the T-unit to written material it is possible to determine whether that material contains (a) long simple sentences (one T-unit with an average of ten words), or (b) long sentences that contain many short T-units (four T-units with an

average of six words), or (c) long sentences with many long T-units (four T-units with an average of ten words).

This additional control for sentence complexity is important because readability formulas fail to measure two important elements; the number of clauses per sentence and the average length of clauses per sentence. Through the utilization of the T-unit, it is possible to determine not only whether the material contains an average of three T-units per sentence, but also the number of words per T-unit. By utilizing such a formula it is possible to help control for these additional elements of sentence complexity.

Table 2 on the following page indicates the number of T-units per selection. The average T-unit per selection was determined by analyzing the complete sentences found within each sample employed in the assessment of readability. Therefore, five samples were taken from each of the six selections. As the results of Table 2 reveal, each of the six conceptual arrangements was comparable in terms of the number of T-units per selection and the average length of T-unit per selection. This meant that each selection was not only comparable in terms of readability level, but also in the number of T-units per sentence.

## Development of the Comprehension Test

In order to determine whether the Frayer model facilitates concept attainment when compared to the textbook approach, a comprehension test had to be developed. The methods and procedures employed in constructing the test were as follows: (1) since the test was a measure of concept

TABLE 2

MEASURE OF SENTENCE
COMPLEXITY PER SELECTION*

| | No. of T-units per Sentence | No. of Words per T-unit |
|---|---|---|
| I | 1.22 | 10.1 |
| II | 1.23 | 11.5 |
| III | 1.38 | 9.9 |
| IV | 1.24 | 9.6 |
| V | 1.27 | 10.1 |
| VI | 1.24 | 9.5 |

*Sentence complexity determined by Minimal Terminal Unit (T-Unit)

comprehension, thirty-nine questions were constructed following the guidelines established in "A Schema for Testing the Level of Concept Mastery," (Frayer, Fredrick, and Klausmeier, 1969), (2) since the test also measured the influence sequencing, i.e., whether the material was arranged in topical, chronological or reverse chronological order, had upon concept comprehension, questions dealing with material throughout the passage were constructed, (3) since it was not known how the items on the test would function, two pilot tests were administered; and as a result, the items which did not meet the established criteria were deleted. The final

instrument was comprised of twenty questions of which twelve questions dealt with the three concepts (four per concept), four questions were employed as distractors, and four questions dealt with factual information contained in the passage (see Appendix G).

In the process of constructing the comprehension test two factors had to be considered: (1) the number of items to be included in the pilot test, and (2) the establishment of a criterion by which the items could be evaluated. Several sources (Ebel, 1965; Furst, 1958; Horst, 1966; and Wood, 1960) were consulted in an attempt to determine the appropriate number of questions to include in the pilot test. The consensus seemed to be that the number of items to include in the pilot study was approximately twice the desired length of the final form of the test. Since the final instrument was to contain twenty items, a thirty-nine item pilot test was constructed.

In establishing a criterion for judging the strengths and weaknesses of each item, the GITAP (General Item Analysis Program) was utilized. This item-analysis program provides the researcher with a variety of statistical information: (a) difficulty level, (b) item-criterion correlation, (c) $X_{50}$ (the point on the criterion scale at which the item choice has maximum discrimination), (d) Beta (the measure of discriminating power of the item), and (e) the Hoyt internal consistency reliability coefficient.

In establishing the criteria for the items on the comprehension test, a number of factors were considered: (a) the $X_{50}$ coefficient, (b) the Beta value, and (c) the item-criterion correlation.

In determining the appropriate level of the $X_{50}$ coefficient, Harris (1968) states: "The most desirable $X_{50}$ point depends upon the purpose of the test. To maximally discriminate among all subjects, a range of $X_{50}$s is desirable (p.12)." Using the guidelines established by Harris, an $X_{50}$ range -1.25 to +1.25 was selected as the most desirable range, because it discriminated among 89% of the subjects in a normal distribution. In reference to the Beta value Harris recommends that the most desirable level for the correct choice of an item should be a positive .30 or greater, because it is at this point that the item choice is discriminating most effectively. In regard to the item-criterion correlation, a positive .30 or greater was selected as acceptable to the researcher, because, as Harris states: "This type of situation means that those subjects who respond to the correct choice tend to have higher criterion scores (positive .30 or greater) ... This, of course, is what you would like to see happen --- the better students get the item correct and the poor students get it incorrect (p.11)."

The Pilot Study

The primary purpose of the pilot study was twofold: (1) to establish a valid and reliable test of comprehension based on the previously stated criteria, and (2) to determine any administrative difficulties.

The procedure for conducting the pilot study was very straightforward. Students were randomly assigned to one of the six variations of the treatment. Once they completed reading the material, the students exchanged it in return for a copy of the test. This procedure was utilized to prevent any student from reexamining the reading material in

search of correct answers. The directions for the comprehension test were contained within the examination material. Each student was read the instructions before beginning the test. There was no attempt to identify good or poor readers within individual classrooms since this was not the objective of the pilot test.

The pilot population consisted of ninth grade history students from Holly High School which is located in Holly, Michigan, a semi-rural community. The student population came from a social strata ranging from lower middle to middle class. The pilot study was conducted in October of 1972. Fifty-six students from a total of three American history classes participated in the study. American history classes were chosen for three reasons: (1) the material was designed for use in American history classes, (2) American history classes were required of all ninth grade students, and (3) American history classes represented a cross section of the student population.

The data obtained from the pilot study were subjected to the GITAP program. Employing the criteria (a criterion-item correlation of positive .30 or greater, an $X_{50}$ of +1.25 to -1.25, and a Beta value of positive .30 or greater) established by the researcher for item analysis, the nineteen weakest items were deleted from the test (See Table 3 on the following page). Of the twenty items selected for the final instrument, only item 35, which had an $X_{50}$ value of +1.30, was above the desired level. However, it was retained in order to maintain the appropriate balance of four questions per concept. Since the overall Hoyt internal consistency reliability coefficient of the pilot test was .81, it was not

TABLE 3

ITEM CRITERION CORRELATION, $X_{50}$ AND BETA VALUE FOR QUESTIONS IN FIRST PILOT TEST

| ITEM | Item Criterion Correlation | $X_{50}$ | Beta |
|---|---|---|---|
| 1. | .18 | .39 | .24 |
| 2.* | .59 | .54 | 1.17 |
| 3.* | .36 | .99 | .53 |
| 4.* | .46 | -.78 | .75 |
| 5.* | .58 | .49 | 1.11 |
| 6. | .07 | 6.01 | .09 |
| 7.* | .47 | .08 | .72 |
| 8.* | .44 | .24 | .66 |
| 9.* | .48 | .37 | .77 |
| 10. | .42 | .42 | .63 |
| 11. | .41 | .78 | .63 |
| 12.* | .51 | .07 | .82 |
| 13. | .43 | .08 | .65 |
| 14.* | .47 | .76 | .79 |
| 15. | -.19 | -3.53 | -.32 |
| 16.* | .45 | .40 | .70 |
| 17. | -.01 | -72.39 | -.01 |
| 18.* | .30 | .60 | .40 |
| 19. | .21 | .36 | .27 |

| ITEM | Item Criterion Correlation | $X_{50}$ | Beta Value |
|---|---|---|---|
| 20. | .13 | 5.06 | .13 |
| 21.* | .54 | .20 | .93 |
| 22.* | .30 | -1.01 | .41 |
| 23. | .28 | 2.02 | .42 |
| 24. | .06 | 8.49 | .09 |
| 25. | .65 | 1.01 | 5.75 |
| 26. | .28 | -.64 | .37 |
| 27.* | .35 | .21 | .48 |
| 28. | -.19 | -3.17 | -.28 |
| 29.* | .46 | .54 | .73 |
| .30 | .34 | 1.86 | .56 |
| 31. | .31 | -220.14 | .01 |
| 32.* | .41 | -.09 | .60 |
| 33.* | .30 | 1.11 | .40 |
| 34. | .34 | -1.14 | .50 |
| 35.* | .43 | 1.30 | .77 |
| 36. | .31 | -1.23 | .49 |
| 37.* | .53 | .47 | .92 |
| 38.* | .49 | .65 | .83 |
| 39. | .31 | .00 | .43 |

*Indicates Questions on Second Pilot Test

felt that the inclusion of this item would jeopardize final test reliability.

To assure that the final twenty items were as reliable on a second testing as the first pilot test, a second pilot test was administered. The procedure was identical to that of the first pilot study.

The second pilot population included the ninth grade social studies students from Monona Grove High School which is located in Monona, Wisconsin, a suburb of Madison, Wisconsin. The school population draws from a social strata ranging from middle to upper middle class.

The pilot study was conducted in November of 1972. Fifty students from a total of two social studies classes participated in the study. The reasons for selecting these classes were the same as in the first pilot study.

The criteria utilized in item analysis were also identical to those of the first pilot study. Table 4 on the following page reveals the results of the second pilot test. While the overall reliability dropped from .81 to .76, all question ...cept 3, 12, 13, and 14 fell within the desired range. Questions 12, 13, and 14 deviated only slightly in one area, item-criterion correlation. Because of their relative closeness to the desired level, it was felt the instrument would be adequate.

To recapitulate, a comprehension test was developed to determine whether the Frayer model of concept attainment would facilitate concept comprehension when compared to the textbook approach. Specific methods and procedures were outlined as a means of establishing a criteria for judging items. The first pilot test contained thirty-nine items. Of

TABLE 4

ITEM CRITERION, $X_{50}$, AND BETA
VALUE FOR QUESTIONS IN THE SECOND PILOT TEST

| ITEM | Item Criterion Correlation | $X_{50}$ | Beta |
|---|---|---|---|
| 1. | .63 | .38 | 1.35 |
| 2. | .57 | -.21 | 1.02 |
| 3. | .21 | .00 | .27 |
| 4. | .47 | .25 | .74 |
| 5. | .53 | .83 | 1.09 |
| 6. | .34 | .82 | .48 |
| 7. | .38 | .63 | .56 |
| 8. | .48 | .58 | .78 |
| 9. | .49 | .17 | .72 |
| 10. | .59 | .80 | 1.21 |
| 11. | .23 | .88 | .30 |
| 12. | .25 | .48 | .33 |
| 13. | .27 | .75 | .36 |
| 14. | .30 | .92 | .42 |
| 15. | .52 | .23 | .86 |
| 16. | .48 | .66 | .79 |
| 17. | .34 | .35 | .48 |
| 18. | .39 | .72 | .58 |
| 19. | .45 | .44 | .70 |
| .20 | .52 | .00 | .87 |

these, nineteen were eliminated on the basis of the established criteria. A second pilot test was administered to further determine the acceptability of the remaining twenty items. As a result of the second pilot test, the final instrument was judged adequate for use in the study.

The Test of Comprehension

As a result of the pilot test, twenty items were selected for inclusion within the final instrument. These items were judged acceptable on the basis of the statistical data obtained from GITAP Program. In order to determine content validity, an evaluation of how well the test questions measured concept knowledge had to be made. Content validity can best be established by logical examination of the test and the method utilized to construct the questions. The following methods and procedures were employed in constructing the test. (1) Since the test was a measure of concept comprehension, thirty-nine questions were constructed following the guidelines established in "A Schema for Testing the Level of Concept Mastery", Frayer, Fredrick, and Klausmeier, 1969. (2) Since the test also measured the influence sequencing had on concept comprehension, questions dealing with material throughout the passage had to be constructed. (3) Since the concepts utilized in the study were based upon social studies material, judges examined both the content of the material and the test of concept comprehension to determine (a) whether information contained within the material provided acceptable definitions for the concepts and (b) whether questions on the comprehension test were a valid measure of the content contained within the passage. The judges agreed

that the material provided acceptable definitions for the concepts and that the questions utilized to assess concept attainment were a valid measure of the content contained within the passage. (4) Since it was not known how the items on the test would function, a pilot was administered; and as a result, the items which did not meet the established criteria were deleted.

A further estimate of content validity can be provided by examining the statistical information provided by the GITAP Program. The item-criterion correlation, the $X_{50}$, and the Beta value give an estimate of maximum discrimination of each item among all subjects, the point at which the item is discriminating most effectively, and the correlation between correct choice and high score. All three of these factors correspond to content validity. The results of the item-criterion correlation, $X_{50}$, and the Beta value are revealed in Table 5 on the following page. The levels judged acceptable were the same as in the pilot study: a criterion-item correlation of positive .30 or greater, an $X_{50}$ of +1.25 to -1.25, and a Beta value of positive .30 or greater.

As an analysis of Table 5 reveals, all items on the concept comprehension test utilized in the actual experiment were acceptable according to the criteria established for each individual item statistic. The Hoyt reliability coefficient was increased from .76 to .78. Of the items judged outside the desired range on the second pilot (3, 12, 13, and 14), all increased. The item criterion correlations were increased from .21 to .36, .23 to .41, .25 to .41, and .27 to .46 while the Beta values were increased from .27 to .54, .30 to .59, .33 to .61, and .36 to .72.

TABLE 5

ITEM CRITERION CORRELATION, $X_{50}$, AND BETA VALUE FOR THE COMPREHENSION TEST

| ITEM | Item Criterion Correlation | $X_{50}$ | Beta |
|---|---|---|---|
| 1. | .50 | .41 | .80 |
| 2. | .44 | -.40 | .68 |
| 3. | .36 | -.98 | .54 |
| 4. | .50 | -.12 | .82 |
| 5. | .46 | .71 | .74 |
| 6. | .42 | .24 | .62 |
| 7. | .41 | .44 | .60 |
| 8. | .32 | .38 | .44 |
| 9. | .58 | .07 | 1.04 |
| 10. | .51 | .78 | .90 |
| 11. | .41 | -.15 | .59 |
| 12. | .41 | .36 | .61 |
| 13. | .46 | -.43 | .72 |
| 14. | .32 | -.75 | .45 |
| 15. | .33 | -.14 | .45 |
| 16. | .41 | .54 | .61 |
| 17. | .42 | .36 | .63 |
| 18. | .48 | .80 | .81 |
| 19. | .46 | .07 | .70 |
| 20. | .53 | .11 | .86 |

## Subjects

Ninth grade pupils from a suburban area of Pontiac, Michigan, served as subjects for the actual experiment. Ninth graders were selected for several reasons: (1) the students should possess, or at least have been exposed to, all the basic reading skills necessary to successfully comprehend the concepts presented in the reading selections; (2) the students' level of cognition development at this stage should enable them to comprehend abstract concepts; and (3) the students by this level should have had some exposure to American history. In light of these factors American history was the discipline utilized to test concept comprehension.

The participating schools were Waterford High School located in Waterford, Michigan and Clarenceville High School located in Farmington, Michigan. The school populations draw from social classes ranging from upper-lower to upper middle. Both high schools are located in predominately urban settings.

## Reading Level

Reading level was based upon the students' performance on the vocabulary and comprehension sections of the Gates-Mac Ginitie Reading Test, Form E. The reading test was administered by the researcher in October and November of 1972. A total of 748 ninth grade students were given the reading test. The raw scores from the vocabulary and comprehension sections of the Gates-Mac Ginitie were converted to percentiles for the purpose of distinguishing between good and poor readers. Thus, operationally defined good readers were those subjects whose performance placed them between the 53rd and 85th percentiles, and poor readers were those subjects

whose performance placed them between the 16th and 47th percentiles. Those students whose scores fell at or above the 86th percentile were eliminated, because it was assumed that they possessed such highly developed reading skills that the method of conceptual presentation would have little effect upon their ability to comprehend concepts; those students whose scores fell between the 48th and 52nd percentiles were eliminated as potential overlap between good and poor readers; and those students whose scores fell below the 15th percentile were eliminated because of their presumed inability to read well enough to comprehend the material. From the 748 students tested, 180 were designated good readers and 180 students were designated poor readers.

## Procedure

### Sequence of Testing

Each subject participating in the study had the Gates-Mac Ginitie Reading Test, Form E administered to him prior to the presentation of the reading task and conceptual comprehension test. This was done to insure that equal numbers of good and poor readers were identified for each cell. The Gates-Mac Ginitie Reading Test was administered by the researcher during the subjects' regularly scheduled class.

### Administration of the Reading Task and Conceptual Comprehension Test

To control for the teacher variable, all instruction except for oral directions was eliminated. Therefore, each student was only required to read a selection of approximately 3,400 words and respond to a multiple

choice test. Both activities were completed within one (55 minute) class period.

Oral directions for the reading task were given to each class by the researcher. The same directions were given to each class. Once the reading task began, no assistance in terms of supplying definitions to words or answering questions pertaining to the content was provided. The students were not allowed to look back at the reading selection, because the comprehension tests were distributed once they had completed the reading task. Directions for completing the comprehension test were contained within the test booklet. These were read orally to each student and questions regarding the test were answered before the start of the reading task. Each student, regardless of the method of conceptual analysis, received the same comprehension test.

## Design

A 2X2X3 factorial desig. with an N=360 was employed (see Figure 1 on the following page). Once reading level was determined, each student through the utilization of a random table of numbers was assigned to one of the six conceptual approaches. Therefore, each classroom contained students from all six conceptual approaches.

## Analysis of Data

An analysis of variance was performed to measure the effect the two methods of conceptual presentation (Frayer model and textbook approach) and the three arrangements of concept examples (chronological, topical, and reverse chronological order) had upon good and poor readers. The

FIGURE 1

METHOD OF CONCEPTUAL PRESENTATION

| METHOD ARRANGEMENT | | Frayer Model | | | Textbook Approach | | |
|---|---|---|---|---|---|---|---|
| | | Chronological | Topical | Reverse Chronological | Chronological | Topical | Reverse Chronological |
| READING LEVEL | Good | 30 | 30 | 30 | 30 | 30 | 30 |
| | Poor | 30 | 30 | 30 | 30 | 30 | 30 |

variation in conceptual approach, the arrangement of concept examples, and the reading levels of the subjects were the independent variables while the number of correct responses made by a subject on the comprehension test was the dependent variable.

## Chapter III

## RESULTS AND DISCUSSION

As was indicated in Chapter II, the number of correct responses made by a subject on the comprehension test was utilized to ascertain whether any significant difference existed among the three independent variables, i.e., ability (good and poor readers), method (Frayer model and the Textbook approach), and arrangement of concept examples within method (topical, chronological, and reverse chronological order). The raw scores obtained from the comprehension test were subjected to a Multivariate Analysis of Variance, Version IV (Finn, 1968).

Ten of the eleven hypotheses in this study are predicated upon the assumption that good and poor readers differ in their ability to comprehend written material. To establish the existence of this difference, the Gates-MacGinitie Reading Test was administered to each student and good and poor readers were identified on the basis of their percentile rankings. Once good and poor readers were identified, the raw scores they obtained on the test of concept comprehension were analyzed to determine whether a difference in ability to comprehend the written materials utilized in this study existed between the two groups. Table 1 presents the observed cell mean scores based on correct responses to the concept comprehension test. Out of a possible twenty points on the comprehension test the good readers averaged 4.2 points better than did the poor readers. Table 1 also presents the standard deviations. The results presented in Table 1 show that

TABLE 1

OBSERVED CELL MEAN SCORES OF READING ABILITY
AND STANDARD DEVIATIONS

| Source | Mean Score of Reading Ability | Standard Deviation |
|---|---|---|
| Good Readers | 11.5 | 2.79 |
| Poor Readers | 7.3 | 2.32 |

TABLE 2

MULTIVARIANCE ANALYSIS OF ABILITY, METHOD, AND ARRANGEMENT

| Source | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Ability | 1625.62 | 1 | 1625.62 | 239.25 | <.0001 |
| Method | 2491.14 | 1 | 2491.14 | 366.64 | <.0001 |
| Arrangement | 1.87 | 2 | .93 | .14 | <.8717 |
| Method X Arrangement | 17.09 | 2 | 8.54 | 1.26 | <.2857 |
| Method X Ability | 7.22 | 1 | 7.22 | 1.06 | <.3032 |
| Ability X Arrangement | 27.47 | 2 | 13.73 | 2.02 | <.1314 |
| Method X Ability X Arrangement | 10.87 | 2 | 5.43 | .80 | <.4504 |
| Error | 2364.50 | 348 | 6.80 | | |

the standard deviations (good readers, 2.79; poor readers, 2.32) are highly similar. This low variability shows that individuals within both ability groups were very close to their group means. The high similarity in standard deviations indicates that the variance between comprehension scores is so neglible further analysis is not required. Table 2 presents the results of the multivariate analysis of variance. As Table 2 reveals, there is a significant difference ($p < .0001$) in the ability of good and poor readers to comprehend the written material used in this study. Therefore, the results confirmed the previously established assumption that good and poor readers differ in their ability to comprehend.

With the difference in reading ability established, the eleven hypotheses in the study were examined. In presenting the data, each hypothesis is restated, relevant data presented, and interpretation and discussion given. The hypotheses are presented in the order in which they were stated in Chapter I.

Hypothesis 1

The first hypothesis dealt with the performance of subjects who utilized the Frayer model as compared to the subjects who utilized the Textbook approach.

> 1. Students who utilize material organized according to the Frayer model of concept attainment will score significantly higher on a test of concept comprehension as compared to students who utilize materials organized according to the Textbook approach.

Test of Hypothesis:

Table 3 presents an analysis of the mean correct responses received by students utilizing both the Frayer model and the Textbook approach.

The results revealed in Table 3 indicate that there is a difference between the two methods; the students who used the Frayer model had an observed mean of 12.1; the students using the Textbook approach had an observed mean of 6.7. In other words those students who read material organized according to the Frayer model scored 5.4 points higher than did those students who read material organized according to the Textbook approach. Inspection of Table 1 reveals that the difference between the Frayer model and the Textbook approach is significant ($p < .0001$). Therefore, hypothesis one is accepted.

Discussion:

The results of the comprehension test support the findings of Fredrick, Frayer and Klausmeier (1969) in that the group which read materials written according to the Frayer model, a procedure which directs the student's attention toward the relevant attributes of a concept, did significantly better in comprehending concepts than did the group utilizing

TABLE 3

MULTIVARIATE ANALYSIS OF THE DIFFERENCE BETWEEN THE FRAYER AND TEXTBOOK METHODS

| Source | Observed Cell Mean | | | | | | Total |
|---|---|---|---|---|---|---|---|
| Frayer Model | 14.2 | 14.4 | 14.3 | 10.3 | 9.5 | 9.4 | 12.1 |
| Textbook Approach | 8.4 | 8.2 | 9.7 | 5.0 | 4.7 | 4.6 | 6.7 |

the Textbook approach. These results are also consistent with the conclusions reached by Lee and Anderson (1970), who suggested that the procedure used by textbook writers to define concepts is inadequate, a conclusion which appears to be supported by the results of this study. It would seem, then, that a procedure such as that prescribed by the Frayer model, which follows specific guidelines for concept attainment, does facilitate concept comprehension.

A further analysis of the data reveals a mean score difference of 5.4 between the two methods. This indicates that those students who utilized material organized according to the Frayer model had a 25% higher mean score on the comprehension test than did those students who used materials organized according to the Textbook approach.

To understand the extent to which the Frayer model did facilitate comprehension, two additional factors had to be considered: (1) the effect reading ability had upon method; i.e., it had to be determined whether good or poor readers account for the major portion of the variance that existed between the Frayer model and the Textbook approach; and (2) the effect arrangement of concept examples had upon both reading ability and method of concept attainment. These factors are thoroughly discussed in the analysis of the remaining ten hypotheses. However, some indication of the effect of ability, method, and arrangement is given by the data summarized in Table 2. As the results of Table 2 reveal, method, when reading ability is omitted, accounted for ninety-five percent of the total variance. There was little doubt that reading ability would be significant, since reading ability had been previously established through the

utilization of the Gates-MacGinitie Reading Test. Given these results, it appears that the Frayer method does facilitate concept comprehension. Table 2 also reveals the reason why there is no need to conduct a Post Hoc analysis; method accounts for virtually all of the variance.

Hypotheses 2 and 3

Hypotheses two and three deal with the performance of good readers utilizing the Frayer model as compared to good readers utilizing the Textbook approach and the performance of poor readers utilizing the Frayer model as compared to poor readers utilizing the Textbook approach.

2. Good readers who utilize materials organized according to the Frayer model of concept attainment will score significantly higher on a test of concept comprehension as compared to good readers who utilize material organized according to the Textbook approach.

3. Poor readers who utilize materials organized according to the Frayer model of concept attainment will score significantly higher on a test of concept comprehension as compared to poor readers who utilize materials organized according to the Textbook approach.

Test of Hypotheses:

Since both hypotheses two and three deal with the effect method (Frayer vs. Textbook) has upon the performance of good and poor readers, both are analyzed together. The observed cell mean scores shown in Table 4 indicate that the good readers who read materials organized according to the Frayer model scored significantly higher on the test of concept comprehension than did good readers who read materials organized according to the Textbook apporach. As the multivariate analysis of variance reveals, the difference between the Frayer model and Textbook approach is

significant ($p < .0001$). The results of the analysis are presented in Table 5. Not only are these results statistically significant, but they could also be considered educationally significant, because there was considerable difference between the scores of good readers who used material organized according to the Frayer model and the scores of good readers who utilized material organized according to the Textbook approach; i.e., good readers who employed the Frayer model had a 25% higher mean score on the comprehension test than did good readers who utilized the Textbook approach.

TABLE 4

OBSERVED CELL MEAN SCORES OF GOOD READERS

| Source | Observed Cell Means | | | Total |
|---|---|---|---|---|
| Frayer | 14.2 | 14.4 | 14.3 | 14.3 |
| Textbook | 8.4 | 8.2 | 9.7 | 8.7 |
| Difference Between the Frayer and the Textbook Approaches | 5.8 | 6.2 | 4.6 | 5.6 |

Similar results were revealed in the analysis of the data of the poor readers who utilized the Frayer model of concept attainment. An analysis of the observed cell mean scores for poor readers reveals a difference between the Frayer and Textbook methods. The results presented in Table 6

TABLE 5

MULTIANALYSIS OF VARIANCE OF DIFFERENCES BETWEEN GOOD READERS WHO UTILIZE THE FRAYER AND TEXTBOOK APPROACHES

| Source | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Frayer Compared to Textbook | 1383.34 | 1 | 1383.34 | 170.70 | <.0001 |
| Contrasts Within the Frayer | .82 | 2 | .41 | .05 | <.9606 |
| Contrasts Within the Textbook | 38.69 | 2 | 19.34 | 2.39 | <.0950 |
| Error | 1410.10 | 174 | 8.10 | | |

TABLE 6

OBSERVED CELL MEAN SCORES OF POOR READERS

| Source | Observed Cell Means | | | Total |
|---|---|---|---|---|
| Frayer | 10.3 | 9.5 | 9.4 | 9.7 |
| Textbook | 5.0 | 4.7 | 4.6 | 4.7 |
| Difference Between Frayer and Textbook | 5.3 | 4.8 | 4.8 | 5.0 |

show that the mean score for poor readers utilizing the Frayer model was 9.7, while the mean score for poor readers utilizing the Textbook approach was 4.7. The multivariate analysis of variance disclosed that indeed

there was a statistically significant difference ($p < .0001$) between poor readers who used the Frayer model and the poor readers who used the Textbook approach. The results of the analysis are presented in Table 7. Therefore, on the basis of the data presented in this section, hypotheses two and three are accepted.

TABLE 7

MULTIANALYSIS OF VARIANCE OF DIFFERENCES BETWEEN POOR READERS WHO UTILIZE THE FRAYER AND TEXTBOOK APPROACHES

| Source | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Frayer Compared to Textbook | 1115.02 | 1 | 1115.02 | 203.28 | <.0001 |
| Contrasts Within Frayer | 15.29 | 2 | 7.64 | 1.39 | <.2510 |
| Contrasts Within Textbook | 2.49 | 2 | 1.24 | .23 | <.7073 |
| Error | 954.41 | 174 | 5.48 | | |

Discussion:

As the data in the previous section indicated, there was a significant difference between the good and poor readers who utilized the Frayer model when compared to the good and poor readers who used the Textbook approach. What further analysis of the data reveals is that both good and poor readers who employed the Frayer model achieved a higher mean score. Therefore, it is possible to conclude that neither the Frayer

method employed with good readers nor the Frayer method employed with poor readers accounted for a major portion of the variance that existed between the Frayer model and Textbook approach. But rather, the Frayer model was as consistent with good readers as it was with poor readers. These results seem to indicate that materials organized according to the guidelines established by the Frayer model facilitate comprehension for both good and poor readers.

Another point that is revealed by the analysis of the data presented in this section is that when a comparison is made between the mean correct responses of good readers (8.7) employing the Textbook approach and the mean correct responses of poor readers (9.7) utilizing the Frayer model, it becomes apparent that the poor readers outperformed the good readers. The results of this comparison are presented in Table 8. While the difference is not statistically signifant, it does have educational implications. The results suggest that by rewriting material according to the guidelines established by the Frayer model poor readers could attain

TABLE 8

COMPARISON BETWEEN OBSERVED CELL MEAN SCORES OF FRAYER POOR READERS AND TEXTBOOK GOOD READERS

| Source | Observed Cell Means | | | Total |
|---|---|---|---|---|
| Frayer Poor Readers | 10.3 | 9.5 | 9.4 | 9.7 |
| Textbook Good Readers | 8.4 | 8.2 | 9.7 | 8.7 |
| Difference Between Frayer and Textbook | 1.9 | 1.3 | -0.3 | 1.0 |

concepts as well as good readers who used material organized according to the Textbook approach. This is not to imply that good readers should employ one set of materials and poor readers utilize another. The comparison was made merely to emphasize the effect reorganization of material has upon comprehension. This in itself is an important factor to consider.

Hypotheses 4 and 5

Hypotheses four and five deal with the effect variations in conceptual arrangement within the Frayer model have upon comprehension scores of good readers.

4. Good readers who utilize the Frayer model with concept examples arranged in topical order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Frayer model with concept examples arranged in chronological order.

5. Good readers who utilize the Frayer model with concept examples arranged in reverse chronological order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Frayer model with concept examples arranged in topical order.

Test of Hypotheses:

Hypotheses four and five are discussed together because the researcher hypothesized that the arrangement of concept examples within the Frayer model would not significantly affect the comprehension scores of good readers. The mean correct responses of good readers who used the three different arrangements of concept examples were presented earlier in Table 4; they were as follows: (1) topical arrangement, 14.2; (2) chronological arrangement, 14.4; and (3) reverse chronological arrangement, 14.3.

The difference between the scores is negligible. This is verified by the results obtained from the multivariate analysis of variance. As shown in Table 9, a significant difference ($p < .7513$) does not exist between good readers who utilized the Frayer model with concept examples arranged chronologically and good readers who utilized the Frayer model with concept examples arranged in topical order. Hypothesis five, therefore, is not rejected.

TABLE 9

MULTIVARIATE ANALYSIS OF ARRANGEMENT WITHIN THE FRAYER MODEL AND TEXTBOOK APPROACH FOR GOOD READERS

| Source | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Method (Frayer vs. Textbook) | 1383.34 | 1 | 1383.34 | 170.70 | <.0001 |
| Arrangement Within Frayer (Topical vs. Chronological) | .81 | 1 | .81 | .10 | <.7513 |
| Arrangement Within Frayer (Reverse Chronological vs. Topical) | .26 | 1 | .26 | .03 | <.8567 |
| Arrangement Within Textbook (Topical vs. Chronological) | .42 | 1 | .42 | .05 | <.8309 |
| Arrangement Within Textbook (Topical vs. Reverse Chronological) | 32.27 | 1 | 32.27 | 3.98 | <.0467 |
| Error | 1420.10 | 174 | 8.10 | | |

Inspection of Table 9 indicates that a significant ($p < .8567$) difference does not exist between good readers who use the Frayer model with concept examples arranged in reverse chronological order and good readers who use the Frayer model with concept examples arranged in topical order. Hypothesis six, therefore, is not rejected.

Discussion:

The comparison between the different arrangements within the Frayer model points out that good readers did not benefit from a variation in concept examples. This is consistent with earlier research conducted by Cromer and Wiener (1967); Oaken, Wiener, and Cromer (1971); and Smith and Hesse (1969) in that good readers seem less affected by the organizational patterns of written matterial than are poor readers. It would, then, appear that any attempt to facilitate comprehension by imposing additional organizational structure on written material through variation in conceptual arrangement would not improve comprehension for good readers.

Hypotheses 6 and 7

Hypotheses six and seven deal with the effect variations in conceptual arrangement within the Frayer model have upon the comprehension scores of poor readers.

6. Poor readers who utilize the Frayer model with concepts arranged in topical order will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Frayer model with concept examples arranged in chronological order.

7. Poor readers who utilize the Frayer model with concepts arranged in reverse chronological order will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Frayer model with concept examples arranged in topical order.

Test of Hypotheses:

Hypotheses six and seven are discussed together because the researcher hypothesized that arrangement of concept examples within the Frayer model would significantly affect the concept comprehension scores of poor readers. The mean correct responses for poor readers utilizing the three conceptual arrangements within the Frayer model were presented earlier in Table 6; they were as follows: (1) topical arrangement, 10.3; (2) chronological arrangement, 9.5; and (3) reverse chronological arrangement, 9.4. As the multivariate analysis of variance presented in Table 10 indicates, arrangement of concept examples within the Frayer model had no significant affect [topical vs. chronological, ($p < .1876$); and reverse chronological vs. topical, ($p < .1246$)] upon comprehension scores. Therefore, both hypotheses six and seven are rejected.

Discussion:

The comparison between the three conceptual arrangements within the Frayer model illustrates that the poor readers, like the good readers, apparently did not derive any salutary effects from a variation in the arrangement of concept examples. Earlier research in learning theory (Klausmeier and Ripple, 1971) suggested that topical or reverse chronological arrangement of concept examples might more effectively facilitate comprehension when compared to the traditional chronological presentation of concept examples. The results in this study appear not to support those findings. However, the Frayer model has embodied in it several theoretical assumptions which make it difficult to discern whether arrangement can be discounted as a possible factor for improving comprehension

of poor readers. First, the Frayer model is predicated on the premise that concepts are presented within a superordinate, coordinate, subordinate relationship which implies the selection of concepts on a topical basis. A second basic tenet of the Frayer model is the method in which concept examples are introduced. The first example of a new concept is presented within the reader's backgound of experience. Both of these premises are related to the theoretical assumptions tested by the arrangement of concept examples; i.e., the effect of utilizing a concept example within the reader's experiential background and the effect of arrangement of concepts according to basic topics. Because the Frayer model has incorporated these factors within its approach to defining concepts, it becomes difficult to determine whether arrangement of concept examples can be eliminated as means for facilitating comprehension for poor readers.

Hypotheses 8 and 9

Hypotheses eight and nine deal with the effect variations in conceptual arrangement within the Textbook approach have upon the comprehension scores of good readers.

8. Good readers who utilize the Textbook approach with concepts arranged in topical order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Textbook approach with concept examples arranged in chronological order.

9. Good readers who utilize the Textbook approach with concepts arranged in topical order will not score significantly higher on a test of concept comprehension when compared to good readers who utilize the Textbook approach with concept examples arranged in reverse chronological order.

TABLE 10

MULTIVARIATE ANALYSIS OF ARRANGEMENT WITHIN THE FRAYER MODEL AND TEXTBOOK APPROACH FOR POOR READERS

| Source | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Method (Frayer vs. Textbook) | 1115.02 | 1 | 1115.02 | 203.28 | <.0001 |
| Arrangement Within Frayer (Topical vs. Chronological) | 9.60 | 1 | 9.60 | 1.75 | <.1876 |
| Arrangement Within Frayer (Reverse Chronological vs. Topical) | 13.60 | 1 | 13.60 | 2.38 | <.1246 |
| Arrangement Within Textbook (Topical vs. Chronological) | 1.07 | 1 | 1.07 | .20 | <.6598 |
| Arrangement Within Textbook (Topical vs. Reverse Chronological) | .27 | 1 | .27 | .05 | <.8258 |
| Error | 954.39 | 174 | 5.49 | | |

Test of Hypotheses:

Hypotheses eight and nine are discussed together because the researcher hypothesized that arrangement of concept examples within the Textbook approach would not significantly affect the concept comprehension scores of good readers. The mean correct responses for good readers employing the three conceptual arrangements within the Textbook approach were presented earlier in Table 4; they were as follows: (1) chronological

arrangement, 8.4; (2) topical arrangement, 8.2; and (3) reverse chronological arrangement, 9.7. As the analysis of the data in Table 9 shows, there is no significant ($p < .8309$) difference between concept examples arranged topically as compared to concept examples arranged chronologically. Hypothesis eight is, therefore, accepted.

However, analysis of Table 9 indicates there is a significant ($p < .0467$) difference between concepts examples arranged topically and concept examples arranged in reverse chronological order. Hypothesis nine is therefore rejected.

Discussion:

As the data in the previous section revealed, arrangement of concept examples within the Textbook approach affected the good readers differently. The results of the comparison between observed cell mean scores of good readers who utilized material organized topically and of good readers who utilized material organized chronologically were consistent with the research conducted by Cromer and Wiener (1967) and Oaken, Wiener, and Cromer (1971) in that good readers seem less affected by the organizational patterns of written material than were the poor readers. The results were also consistent with the research findings reported in this study; e.g., the variation in conceptual arrangement within the Frayer model did not improve comprehension for good readers. It would, then, appear that arrangement of concept examples has an insignificant effect on good readers using the Textbook approach. However, the good readers who used the reverse chronological arrangement did significantly better than did the

good readers who used the topical arrangement. While it would appear that reverse chronological arrangement was the best method for good readers utilizing the Textbook approach, the same results were not achieved with other groups (Frayer good readers, Frayer poor readers and Textbook poor readers) who utilized materials arranged in reverse chronological order. Therefore, before any conclusions can be reached as to the effect reverse chronological arrangement has upon comprehension, further research into the effect of conceptual arrangement needs to be conducted.

Hypotheses 10 and 11

Hypotheses ten and eleven deal with the effect variations in conceptual arrangement within the Textbook approach have upon the comprehension scores of poor readers.

10. Poor readers who utilize the Textbook approach with concepts arranged in topical order will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Textbook approach with concept examples arranged in chronological order.

11. Poor readers who utilize the Textbook approach with concepts arranged in reverse chronological order will score significantly higher on a test of concept comprehension when compared to poor readers who utilize the Textbook approach with concept examples arranged in topical order.

Test of Hypotheses:

Hypotheses ten and eleven are discussed together because the researcher hypothesized that arrangement within the Textbook approach would significantly affect concept comprehension scores of poor readers. The mean correct responses of poor readers employing the three conceptual arrange-

ments within the Textbook approach were presented earlier in Table 6; they were as follows: (1) chronological arrangement, 5.0 (2) topical arrangement, 4.7; and (3) reverse chronological arrangement, 4.6. As the analysis of the data in Table 10 reveals, there is no significant difference between the two arrangements [poor readers utilizing the topical arrangement and the chronological arrangement, ($p < .6598$) and poor readers utilizing the topical arrangement and the reverse chronological arrangement, ($p < .8258$)]. of concepts examples within the Textbook approach. Hypotheses ten and eleven are, therefore, rejected.

Discussion:

As the data reveal, there was a non-significant relationship between arrangement (topical vs. chronological and topical vs. reverse chronological) and comprehension scores of poor readers using the Textbook approach. As the discussion related to hypotheses six and seven indicated, research in learning theory has suggested that variation in the arrangement of concept examples might help facilitate comprehension. However, the results appear not to support those contentions. It would seem that arrangement of concept examples was not an important factor in improving concept comprehension for poor readers utilizing the Textbook approach.

Summary:

As the results of the study have indicated, both good and poor readers who utilized material organized according to the guidelines established by the Frayer model received significantly higher comprehension scores than did good and poor readers who employed materials organized according

to the Textbook approach. However, arrangement of concept examples within both the Frayer and Textbook methods had no affect on comprehension scores. The summary, conclusions, and implications of these results will be discussed in Chapter IV.

## Chapter IV

## SUMMARY, CONCLUSIONS AND IMPLICATIONS

### Summary and Conclusions

The present study was designed to determine whether a method which encompasses a systematic procedure for defining concepts and structures material in a manner designed to facilitate comprehension for both good and poor readers is superior to a method employed by many social studies textbooks in defining concepts, i.e., providing one definition and one example of a concept. The rationale for selecting the Frayer model of concept attainment is based upon the results obtained from research (Blout, Klausmeier, Johnson, Fredrick, and Ramsay, 1967; Frayer, 1970; Frayer and Klausmeier, 1971; Scott, 1970; and Smuckler, 1967) related to conceptual learning. The research suggests that a process which makes explicit the relevant attributes (intrinsic dimensions) of a concept facilitates conceptual attainment. Frayer, Fredrick, and Klausmeier (1969) developed a model of conceptual attainment predicated upon these assumptions.

Embodied within the comparison between the two methods for defining concepts is an additional factor, the influence organizational patterns of written materials exert on the comprehension process. Research conducted by Wiener and Cromer, (1967); Oaken, Wiener, and Cromer, (1971); and Smith and Hesse, (1969) suggests that a mismatch between the reader and the organizational pattern required for comprehension of some written material may contribute to insufficient comprehension. Since research indicated

that poor readers have more difficulty than do good readers in organizing material into comprehensible units both the structure inherent within the Frayer model and the arrangement of concept examples within each method (Frayer vs. Textbook) were investigated to ascertain whether these factors affect comprehension.

In analyzing the main effect and interaction of the three independent variables reading ability (good and poor), method (Frayer and Textbook), and arrangement within method (chronological, topical, and reverse chronological) answers were sought to the following questions: (a) Will students who utilized materials organized according to the Frayer model perform significantly better than students who use materials organized according to the Textbook approach? (b) Will both good and poor readers who use materials organized according to the Frayer model perform significantly better than good and poor readers who employ materials organized according to the Textbook approach? (c) Will arrangement of concept examples within both the Frayer model and the Textbook approach significantly improve comprehension?

To answer these questions 360 ninth grade subjects were selected from two high schools in the suburban area of Pontiac, Michigan. Ninth grade subjects were divided into two reading levels (good and poor) on the basis of their performance on the Gates-MacGinitie Reading Test. The raw score from the test was converted into percentiles for distinguishing between good and poor readers.

Once reading levels were determined, each subject was administered one of the six variations in conceptual arrangement (Frayer model arranged

chronologically, Frayer model arranged topically, Frayer model arranged in reverse chronological order, Textbook approach arranged chronologically, Textbook approach arranged topically, or Textbook approach arranged in reverse chronological order). To assure that an adequate evaluation of the Frayer model and the Textbook approach was made, three concepts were selected for inclusion within each of the six conceptual arrangements. The three concepts utilized in the study were "confederation," "federalism," and "states' rights." Therefore, while arrangement of concept examples varied according to the method utilized, the concepts presented within each conceptual arrangement were identical, i.e., each conceptual arrangement included examples of the same three concepts.

Once the reading task had been completed, each subject was administered the concept comprehension test. The score obtained from the concept comprehension test was utilized to determine whether any significant difference existed between the three independent variables ability (good and poor), method (Frayer vs. Textbook) and arrangement (chronological, topical, and reverse chronological order) of concept examples within methods. The data obtained from the comprehension test were, then, analyzed by the multivariate analysis of variance. As the analysis revealed, there was a significant difference between students who utilized materials organized according to the Frayer model as compared to students who employed materials organized according to the Textbook approach. Students using the Frayer model did significantly better in comprehending concepts than the students utilizing the textbook approach.

The extent to which the Frayer model facilitated comprehension was determined by comparing the interaction between reading ability and method. As the results of the multivariate analysis show, there was a significant

difference between the good and poor readers who utilized the Frayer model when compared to the good and poor readers who used the Textbook approach. Good and poor readers who employed the Frayer model achieved a significantly higher score on the concept comprehension test. It appears, then, that the results produced by the Frayer model were as consistent with good readers as it was with poor readers.

Therefore, it would seem that material organized according to the guidelines established by the Frayer model facilitates comprehension for both good and poor readers.

When the effect of arrangement of concept examples within method was analyzed the results showed that a significant difference did not exist between either arrangement within method or arrangement within ability level. It was not expected that the additional structure provided by the variation in conceptual arrangements would benefit good readers, and these conclusions were supported by the data. However, it had been conjectured that variation in the arrangement of concept examples would facilitate comprehension for poor readers; but as the data revealed, neither model significantly affected the comprehension scores of poor readers. However, the Frayer model has embodied several theoretical assumptions, e.g., the selection of concepts on a topical basis and the presentation of the first example of a concept within the reader's background of experience, which make it difficult to discern whether arrangement can be discounted as a possible factor for improving comprehension of poor readers. Therefore, before any conclusions are reached, more research needs to be conducted to ascertain whether the arrangement of concept examples has any affect upon comprehension.

As the results of the study have indicated, both good and poor readers who utilized material organized according to the guidelines established by the Frayer model received significantly higher comprehension scores than did good and poor readers who employed materials organized according to the Textbook approach. However, arrangement of concept examples within both the Frayer and Textbook methods had no affect on comprehension scores.

## Implications

### Implications for Future Research

Several implications for future research are suggested in an effort to obtain a more thorough understanding of how comprehension might be facilitated through the utilization of the Frayer model of concept attainment.

1. While the Frayer model was found to be significantly better than the Textbook approach for improving comprehension, further investigation needs to be conducted to determine the effect arrangement of concept examples has upon comprehension. Since the Frayer model has embodied several theoretical assumptions, e.g., the selection of concepts on a topical basis and the presentation of the first example of a concept within the reader's background of experience, it was difficult to discern whether arrangement of concept examples affected comprehension. Therefore, alternative methods of concept arrangement should be investigated.

2. It should also be determined whether the number of examples was a significant factor affecting comprehension. In the Textbook approach only one positive example was given while in the Frayer model two examples and two non-examples were given. Both the Frayer model and Textbook approach could be designed to include the same number of examples and non-examples.

3. It should also be determined whether the number of concepts presented in a selection is a significant factor affecting comprehension. In this study three concepts were utilized. For instance, it might make it easier for poor readers to comprehend if only two concepts were dealt with at a time.

4. It should also be determined whether the content utilized in other disciplines would produce the same results. Would the theoretical nature of one discipline make it more readily adaptable to the process utilized by the Frayer model for defining concepts, e.g., social science compared to math?

5. It should also be determined whether material organized according to the Frayer model would obtain the same results when utilized at different grade levels. Since only ninth grade subjects were employed, a similar study should be developed for students within both the intermediate and secondary levels.

6. Finally, since only immediate recall of information was tested, a similar study could be conducted to determine whether any significant difference exists between the Frayer model and the Textbook approach when retention of information over varying intervals of time is examined.

Practical Implications and Limitations

Several implications for practical use within the classroom can also be drawn from the results of the study.

1. In order to implement the Frayer model within the classroom it would require a change in the method in which material is presented. The Frayer model is predicated upon the premise that all material must be

arranged in topical order. As a result, the Frayer model cannot be used unless the teacher is willing to utilize material arranged in topical order.

2. A second implication that can be drawn from this study is that teachers must organize their content around important concepts. If concepts are not viewed as essential to the comprehension process, the Frayer model should not be utilized.

Related to the practical implications drawn from the results of the study are two limitations. First, the results of the study might suggest to some classroom teachers that the Frayer model is an attempt to circumvent the instructional assistance provided by the teacher. However, this is not the objective of the Frayer model of concept attainment. The primary purpose of the Frayer model is to facilitate the reader's understanding of important concepts prior to classroom discussion since many social studies textbooks have not been able to accomplish this objective. And second, teachers must realize that the good and poor readers in this study were defined according to the students' performance on the Gates-MacGinitie Reading Test. This definition might not correspond to the teacher's own concept of good and poor readers as it relates to his own classroom setting.

APPENDIX A

TEXTBOOK APPROACH ARRANGED IN CHRONOLOGICAL ORDER

## Changing Governmental Systems

Since the American Revolution in 1776, the people in the United States have experienced several changes in the political make-up of their government. The first form of government was established after our independence was declared on July 4, 1776. It went into effect in 1781 and lasted until 1789. It was known as the Confederation Period, because the government was created by the Articles of Confederation.

What do we mean by a Confederation Form of Government? It is a system of government in which the states have most of the power. As a result, the central government is weak.

Do not become confused over the terms state and central governments. In the United States the central government is called either the national or federal government. In England the central or national government is called Parliament. Of course, state governments mean the power each of our fifty states has.

To understand our definition of confederation, we must look at an example. The Articles of Confederation is such an example. Under a confederation the states have the majority of power. The framers of the Articles deliberately made the national government weak. They feared the central government might become too strong.

The Articles provided for the national government with a Congress. The Confederation Congress consisted of one house. Its members were appointed by the state. What were some of the powers given the Confederation Congress? It would perform all national functions. It would maintain an Army and Navy. It would conduct foreign affairs. It could also declare war and issue currency.

The important point about the Articles was it gave all the power to the states. The states had more power than the Confederation Congress. The Confederation Congress had no power to tax. This could be done only by the states. To get money, Congress had to ask the states. The Articles did not establish national courts. Power of enforcement belonged to the states. The national government had no power to enforce laws. It could only handle matters that dealt with specific disputes between states. Therefore, each state was obligated to honor the laws of the other states. But there was no guarantee that this would happen.

These powers were denied the Confederation government, because the states feared the central government would become too strong.

What where some of the problems of the Confederation Period? One of the major problems of the Confederation was finances. It had to depend upon the states for support. States were unwilling to pay the federal government any money. Many states had their own financial problems. The American Revolution left many states in debt. But the Confederation government was also in debt. It had borrowed money from other countries to fight the American Revolution. Now, it had to pay them back. This debt caused pressure on the states. They responded by printing their own money. In some states taxes were greatly increased.

All this caused people to react. There were outbreaks of violence in several states. Financial difficulties caused violence to errupt in Massachusetts. Heavy taxes fell hardest on the farmer. One third of their income was taken by taxes. People lost their land. Others went to prison because they could not pay. People became angry at the high taxes. Mobs took the law into their own hands. They tried to prevent

courts from taking away the farmers land. Daniel Shays was the leader of these rebels. He marched to the state capital in an attempt to change the law. But his rebellion was put down. Massachusetts appealed to the Confederation Congress for help. But it did not have the power to do anything.

Another major problem under the Articles of Confederation was foreign affairs. The national government could negotiate treaties and alliances. But this did not mean states had to follow the treaties. In many instances some states ignored certain parts of commercial treaties. For this and other reasons, the national government lacked sufficient power to conduct foreign affairs. This deficiency made it difficult for the Confederation government. The new nation had to depend on other countries for its survival. Therefore, it had to seek foreign aid. But foreign nations like France, Great Britain, and Spain realized the weakness of the Confederation.

Its most serious problems were with Great Britain. One of the problems centered around trade. Great Britain saw the United States as a rival. Therefore, American ships could not enter some of Great Britain's ports. America needed to trade with Great Britain. They needed manufactured goods like tools, pots, pans, and other hardware.

Even worse yet, Great Britain still kept troops in the United States. This was in violation of the treaty signed after the War for Independence. The presence of British troops greatly angered Westerners. They wanted to settle in some of the areas where British troops were. Westerners also thought British troops were selling arms to the Indians. This, they felt encouraged raids on frontier settlements. The Confederation government

could not find a solution. Most of the states were unwilling to cooperate. The New England States needed British trade. So they did not want to anger Great Britain. But settlers in the West wanted the Confederation government to do something. Without much power it was helpless.

The Confederation was not completely ineffective. It was able to manage the development of its land in an orderly manner. In 1784 Thomas Jefferson drafted an ordinance for organization of the West. OUt of this came the Northwest Ordinance. It was one of the most progressive acts passed during the Confederation Period. Before the Northwest Ordinance, states were undecided as to how to manage this territory. It had caused many arguments in the past. The issue of land even prevented the Articles of Confederation from being ratified until 1781.

But out of this land was to come five states: Ohio, Illinois, Indiana, Wisconsin, and Michigan. The Northwest Ordinance established a system by which a territory could become a state. It had to go through three stages.

In the first stage the Confederation Congress would select officials to govern. The new Territorial Government would consist of a governor, a secretary, and three judges. They would rule the entire territory.

In the second stage the territory could elect a legislature. The legislature would share its power with the appointed officials. Before a legislature could be elected, the territory had to contain 5,000 adult males.

When the territory reached a population of 60,000 adult males, it could apply for statehood. This was the third stage. Once a state drew up its Constitution, it could be admitted to the Union. Each state was admitted on equal status.

The Confederation government proved to be ineffective. People like George Washington, John Adams, and others felt that changes had to be made. If changes were not made, the government might not last. In 1785 these problems brought decisive action. Several states called a convention to handle common problems. From this convention other states began to see a need to change the Articles of Confederation. The changes that occurred created a now governmental system. It was known as the Federal System of Government. Federalism divides power between the central government (Congress) and the state governments. Each level of government (central or state) has its own independent powers. But neither level of government gets its power from the other. It generally comes from a written constitution. Therefore, neither the central or state government controls a major portion of the power.

As you can tell, federalism is very different from a confederation. Under the Articles each level of government did not have independent power. The central government had only those powers given to it by the states. This is not true under federalism; the power is divided.

Another difference between the two was their source of power. In a confederation the state is the primary source of power. The state keeps all power except that given to the central government. This is not true with federalism. The source of power is the Constitution. It determines who will have what powers.

Still another difference is the division of power. In federalism the power is divided. Neither the state or federal government has a major portion. Under the Articles the states had most of the power. The govern-

ment we now have in the United States is an example of federalism. Why did our Founding Fathers change from a confederation to a Federal System of Government? To answer this question we must see how the new government was formed.

The ineffectiveness of the Articles of Confederation was apparent. The Confederation Congress could not solve many of the major problems that faced the new nation. Taxes were too high. States were getting into more debt. Trade agreements were ineffective. Several stated decided to handle their own problems. They could not depend upon the Confederation government, because it was too weak.

Men from Maryland and Virginia met in Alexandria in 1785. They wanted to settle a quarrel over the use of the Potomac River. Out of this meeting came the desire for further reform. If Virginia and Maryland could handle their problems successfully, why not other states? So they invited all states to a conference at Annapolis, Maryland in September, 1786. This conference was to deal with problems states were having. Delegates from only five states came. It was disappointing for those who wanted reform. With such a small number, it was difficult to propose any change.

But the mood was right for reform. One man at the Annapolis Convention was a young New York lawyer named Alexander Hamilton. He was convinced that only a stronger central government would keep the nation together. Instead of accepting the failure of this meeting, he proposed another convention. It was to meet at Philadelphia. Its subject would be constitutional reform. The Annapolis Convention approved his suggestion. Even the Confederation Congress gave its approval.

The men who met in Philadelphia had to decide what changes should be made. They were not all in agreement. Some delegates only wanted minor changes in the Articles of Confederation. Some called for a stronger central government. But this meant writing a new constitution. Those who wanted a stronger government were not even in agreement. Some wanted to abolish the states. Others wanted the states to have only limited power. It was up to the delegates to decide what changes would be made.

By May 25, 1787 delegations from seven of the thirteen states had arrived. It was enough to open the convention. The South had the largest representation at the convention. Fourteen of them worked throughout the convention. New England's representation was the smallest. Only six New Englanders signed the Constitution. Delegates who favored a strong central government were called Federalists. These men held private meetings before the convention opened. It was their plan to replace the Articles of Confederation. In its place was to be a new constitution. Therefore, when the convention opened, the Federalists took command.

Their organization paid off from the start. The first move by the Federalists was to elect George Washington as the presiding officer. George Washington supported the need for a stronger central government. His influence would help pass the needed reform.

One of the first acts of the convention resulted in a new form of government. It began when Governor Edmund Randolf of Virginia introduced the Virginia Plan. It called for the establishment of a national government. This plan placed most of the power in the hands of the central government. Most of the Federalist delegates were impressed with the plan. However, Randolf's resolution created a serious problem. It meant

completely doing away with the Articles of Confederation. But since the Federalists had control, it was agreed to discard the Articles. Now, a new form of government had to be worked out.

The Virginia Plan raised a serious question. How would the power be divided? The large states (in population) wanted a national government. The representation would be determined on the basis of population. The small states (in population) were opposed to this idea. They wanted one representative from each state. To them, the population of a state was unimportant.

In the Virginia Plan, the Federalists proposed a strong central government. It was different from the Confederation government. The power came from the people rather than the states. The central government would get its power from the National Legislature. The National Legislature would have an upper and lower house. The people of each state would elect members to the lower house. The members of the lower house would, then, choose the members of the upper house. The members of the National Legislature would be decided by population of a state. This plan favored the large states.

The small states preferred another plan. It was known as the New Jersey Plan. They did not want the states to give up their power to the national government. The small states, then, wanted states to be presented as equals in the National Legislature. Furthermore, they wanted the states to control the central government. Their plan resembled the Articles of Confederation. However, it did give more power to the central government.

The Virginia and New Jersey plans presented the convention with two different alternatives. One wanted a strong central government with representation based on population. The other called for a weak central government with equal representation for all states. A compromise had to be worked out. Oliver Ellsworth offered a plan that brough opponents together. The compromise suggested that the lower house decide its membership on the basis of population. In the upper house representation would be equal. The lower house was called the House of Representatives. And the upper house was known as the Senate. This compromise helped create the Federal System of Government. With the other changes that came out of the convention, the Federal System of Government was created. Federalism had replaced the Confederation.

Once the new Constitution was ratified it went into effect. Like most new forms of government there were some problems. One of the major problems was the failure of the Constitution to clearly define federal and state powers. This was one issue which helped bring on the Civil War. This conflict developed over the role of the federal government. Some felt it should be strong. Others felt it should be weak. Those who supported a weak central government were called states' rightists. But what exactly is states' rights? It is a political theory that calls for increasing power of the states. At the same time it also calls for limiting the power of the central government.

An example of the states' rights theory was the Kentucky and Virginia Resolutions. They brought about the first states' rights movement. The Kentucky and Virginia Resolutions were issued to prevent the Alien and Sedition Acts from going into effect.

Why did the federal government issue the Alien and Sedition Acts? After the new government was established, a new political party developed. It was called the Federalist Party. But many people disliked some of their beliefs. Among those who disliked the Federalist Party were Thomas Jefferson and James Madison. For example, Jefferson and Madison disliked the the Federalist's opinion of France. The Federalists wanted the United States to break its foreign relations with France. This became very evident between 1790-1800. During this period tension with France increased. The French began seizing American ships. Congress responded by having American ships seize French vessels. The infant United States performed well. By the winter of 1798, the Navy had forced France to stop attacking our ships. The U. S. Navy proved it could defend itself. Some were so impressed that they wanted more action. Many wanted the U.S. to go to war.

Jefferson and his followers were not in favor of a war with France. Instead Jefferson wanted the U.S. to negotiate a peace. When President Adams sent a foreign minister to seek peace, the French refused to see him. This greatly angered the Federalists.

During this same period many immigrants from France entered this country. Some feared that if a war broke out they would side with France. The Federalists tried to prevent such an event from happening. They used this opportunity to silence their critics. During June and July 1798 they passed a series of repressive acts. They were known as the Alien and Sedition Acts. The least offensive of these laws was the Naturalization Act. It increased the time one had to be in the United States before becoming a citizen. The period went from five to 14 years.

A second act was the Alien Enemies Act. It gave the President extreme power. He could expel people from the United States who were not citizens if he thought they were enemies. This act was designed especially for French immigrants. If they rebelled against the United States, they could be sent back to France. The President had this power only if the United States was at war.

A third act was the Alien Act. It gave the President power to expel "dangerous" aliens. If the President thought the peace and safety of the United States was at stake, he could use it. This caused many aliens to leave. They feared Adams might use it against them.

Finally, there was the Sedition Act. It was the most drastic of these laws. People who criticized the President or Congress could be fined or imprisoned. This applied to all people. This meant it was against the law to criticize the federal government. People criticized the Alien and Sedition Laws for taking away their freedom of speech. Some thought the Bill of Rights had been violated.

The most drastic affect of this new law was yet to come. In 1800 there was to be a presidential election. The Federalists used the law to silence newspapers who were against them. Twenty-five persons were tried. However, only ten were sent to prison. In a typical case editor Thomas Cooper was sentenced to six months in jail and fined $400. In other words President Adams used these laws against his political enemies.

To Thomas Jefferson the Alien and Sedition Acts were unconstitutional. They were in violation of the First Amendment. In the First Amendment freedom of speech and press are guaranteed. Jefferosn also felt it was a violation of states' rights. In Jefferson's opinion states had

created the federal government. Therefore, it was possible for them to overrule laws that were unconstitutional.

James Madison was in full agreement with Jefferson. They decided to draw up a resolution condemning the laws. Jefferson presented his to the Kentucky Legislature. It said the Constitution was a compact of independent states. Each state had the right to determine whether the compact had been violated. In other words the state could declare a law of Congress unconstitutional. Kentucky declared the Alien and Sedition Acts illegal.

Madison presented his resolution to the Virginia Legislature. It was similar to the resolution presented by Jefferson. The Virginia Resolution was also strongly based on the states' rights theory. It said a state could judge whether the federal government had gone beyond its power. If the central government goes too far, the law can be declared illegal. The members of the Kentucky Legislature agreed with Jefferson. They felt the Alien and Sedition Laws had violated the Constitution. However, some members of the Kentucky Legislature were in disagreement. Those who disagreed with Jefferson felt the state did not have this power. The Constitution did not say anything about declaring national laws illegal. They thought President Adams might send troops to enforce the law if they refused to obey it. The last thing anyone wanted was a civil war. But those who were in the majority agreed with Jefferson. The Kentucky Legislature voted to uphold the Kentucky Resolution.

The Virginia Legislature was less concerned with Adams' reaction. Virginia had also been a leader for increasing states' rights. Madison

and others from Virginia felt President Adams went too far. They hoped that Virginia's strong stand would influence other states. However, it did not have much effect. Most states felt Virginia and Kentucky had violated the law. Those who did not agree with Kentucky and Virginia did not want to take action against the government. But this attitude had little affect on Virginia. Like Kentucky, Virginia declared the Alien and Sedition Laws unconstitutional.

Why can this be considered an example of states' rights? The Kentucky and Virginia Resolutions stated that the power of the federal government should be limited. This meant that the power of the state government had to be increased. This was done by giving each state the right to decide whether a law had gone too far. If it has, then it does not have to obey it. For this reason the Kentucky and Virginia Resolutions are an example of states' rights.

# APPENDIX B

## TEXTBOOK APPROACH ARRANGED IN TOPICAL ORDER

## Changing Governmental Systems

Since the American Revolution in 1776, the people in the United States have experienced several changes in the political make-up of their government. For example, after the American Revolution our newly independent nation established the Articles of Confederation (1781-1789). But the Confederation government proved to be ineffective. People like George Washington, John Adams, and others felt that changes had to be made. If changes were not made, the government might not last. In 1785 these problems brought decisive action. Several states called a convention to handle common problems. From this convention other states began to see a need to change the Articles of Confederation. The changes that occurred created a new governmental system. It was known as the Federal System of Government. Federalism divides power between the central government (Congress) and the state governments. Each level of government (central or state) has its own independent powers. But neither level of government gets its power from the others. It generally comes from a written constitution. Therefore, neither the central or state government controls a major portion of the power.

Do not become confused over the terms state and central governments. In the United States the central government is called either the national or federal government. In England the central or national government is called Parliament. Of course, state governments mean the power each of our fifty states has.

Why did our Founding Fathers decide to adopt the Federal System of Government? To answer this question we must see how the new government was formed.

The ineffectiveness of the Articles of Confederation was apparent. The Confederation Congress could not solve many of the major problems that faced the new nation. Taxes were too high. States were getting into more debt. Trade agreements were ineffective. Several states decided to handle their own problems. They could not depend upon the Confederation government, because it was too weak.

Men from Maryland and Virginia met in Alexandria in 1785. They wanted to settle a quarrel over the use of the Potomac River. Out of this meeting came the desire for further reform. If Virginia and Maryland could handle their problems successfully, why not other states. So they invited all states to a conference at Annapolis, Maryland in September 1786. This conference was to deal with problems states were having. Delegates from only five states came. It was disappointing for those who wanted reform. With such a small number, it was difficult to propose any change.

But the mood was right for reform. One man at the Annapolis Convention was a young New York lawyer named Alexander Hamilton. He was convinced that only a stronger central government would keep the nation together. Instead of accepting the failure of this meeting, he proposed another convention. It was to meet at Philadelphia. Its subject would be constitutional reform. The Annapolis Convention approved his suggestion. Even the Confederation Congress gave its approval.

The men who met in Philadelphia had to decide what changes should be made. They were not all in agreement. Some delegates only wanted minor changes in the Articles of Confederation. Some called for a

stronger central government. But this meant writing a new constitution. Those who wanted a stronger government were not even in agreement. Some wanted to abolish the states. Others wanted the states to have only limited power. It was up to the delegates to decide what changes would be made.

By May 25, 1787 delegations from seven of the thirteen states had arrived. It was enough to open the convention. The South had the largest representation at the convention. Fourteen of them worked throughout the convention. New England's representation was the smallest. Only six New Englanders signed the Constitution. Delegates who favored a strong central government were called Federalists. These men held private meetings before the convention opened. It was their plan to replace the Articles of Confederation. In its place was to be a new constitution. Therefore, when the convention opened, the Federalists took command.

Their organization paid off from the start. The first move by the Federalists was to elect George Washington as the presiding officer. George Washington supported the need for a stronger central government. His influence would help pass the needed reform.

One of the first acts of the convention resulted in a new form of government. It began when Governor Edmund Randolf of Virginia introduced the Virginia Plan. It called for the establishment of a national government. This plan placed most of the power in the hands of the central government. Most of the Federalist delegates were impressed with the plan. However, Randolf's resolution created a serious problem. It meant completely doing away with the Articles of Confederation. But since the

Federalists had control, it was agreed to discard the Articles. Now, a new form of government had to be worked out.

The Virginia Plan raised a serious question. How would the power be divided? The large states (in population) wanted a national government. The representation would be determined on the basis of population. The small states (in population) were opposed to this idea. They wanted one representative for each state. To them, the population of a state was unimportant.

In the Virginia Plan, the Federalists proposed a strong central government. It was different from the Confederation government. The power came from the people rather than the states. The central government would get its power from the National Legislature. The National Legislature would have an upper and lower house. The people of each state elected members to the lower house. The members of the lower house would, then, choose the members of the upper house. The members of the National Legislature would be decided by the population of a state. This plan favored the large states.

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different alternatives. One wanted a strong central government with representation based on population. The other called for a weak central government with equal representation for all states. A compromise had to be worked out. Oliver Ellsworth offered a plan that brought opponents together. The compromise suggested that the lower house decide its membership on the basis of population. In the upper house representation would be equal. The lower house was called the House of Representatives. And the upper house was known as the Senate. This compromise helped create the Federal System of Government. With the other changes that came out of the convention, the Federal System of Government was created. Federalism had replaced the Confederation.

Since we have just discussed federalism, what do we mean by a confederation? Is it similar or different from federalism? Between 1781-1789 our government was run by the Articles of Confederation.

What do we mean by a Confederation Form of Government? It is a system of government in which the states have most of the power. As a result, the central government is weak.

As you can tell, a confederation is very different from federalism. Under the Articles each level of government did not have independent power. The central government had only those powers given to it by the states. This is not true under federalism; the power is divided.

Another difference between the two was their source of power. In a confederation the state is the primary source of power. The state keeps all power except that given to the central government. This is not true with federalism. The source of power is the Constitution. It determines who will what powers.

Still another difference is the division of power. In federalism the power is divided. Neither the state or federal government has a major portion. Under the Articles the states had most of the power.

To understand our definition of confederation, we must look at an example. The Articles of Confederation is such an example. Under a confederation the states have the majority of power. The framers of the Articles deliberately made the national government weak. They feared the central government might become too strong.

The Articles provided for the national government with a Congress. The Confederation Congress consisted of one house. Its members were appointed by the state. What were some of the powers given the Confederation Congress? It would perform all national functions. It would maintain an Army and Navy. It would conduct foreign affairs. It could also declare war and issue currency.

The important point about the Articles was it gave all the power to the states. The states had more power than the Confederation Congress. The Confederation Congress had no power to tax. This could be done only by the states. To get money, Congress had to ask the states. The Articles did not establish national courts. Power of enforcement belonged to the states. The national government had no power to enforce laws. It could only handle matters that dealt with specific disputes between states. Therefore, each state was obligated to honor the laws of the other states. But there was no guarantee that this would happen. These powers were denied the Confederation government, because the states feared the central government would become too strong.

What were some of the problems of the Confederation Period? One of the major problems of the Confederation was finances. It had to depend upon the states for support. States were unwilling to pay the federal government any money. Many states had their own financial problems. The American Revolution left many states in debt. But the Confederation government was also in debt. It had borrowed money from other countries to fight the American Revolution. Now, it had to pay them back. This debt caused pressure on the states. They responded by printing their own money. In some states taxes were greatly increased.

All this caused people to react. There were outbreaks of violence in several states. Financial difficulties caused violence to erupt in Massachusetts. Heavy taxes fell hardest on the farmer. One third of their income was taken by taxes. People lost their land. Others went to prison because they could not pay. People became angry at the high taxes. Mobs took the law into their own hands. They tried to prevent courts from taking away the farmers land. Daniel Shays was the leader of these rebels. He marched to the state capital in an attempt to change the law. But his rebellion was put down. Massachusetts appealed to the Confederation Congress for hlep. But it did not have the power to do anything.

Another major problem under the Articles of Confederation was foreign affairs. The national government could negotiate treaties and alliances. But this did not mean states had to follow the treaties. In many instances some states ignored certain parts of commercial treaties. For this and other reasons, the national government lacked sufficient power to conduct foreign affairs. This deficiency made it difficult for the

Confederation government. The new nation had to depend on other countries for its survival. Therefore, it had to seek foreign aid. But foreign nations like France, Great Britain, and Spain realized the weakness of the Confederation.

Its most serious problems were with Great Britain. One of the problems centered around trade. Great Britain saw the United States as a rival. Therefore, American ships could not enter some of Great Britain's ports. America needed to trade with Great Britain. They needed manufactured goods like tools, pots, pans, and other hardware.

Even worse yet, Great Britain still kept troops in the United States. This was in violation of the treaty signed after the War for Independence. The presence of British troops greatly angered Westerners. They wanted to settle in some of the areas where British troops were. Westerners also thought British troops were selling arms to the Indians. This, they felt encouraged raids on frontier settlements. The Confederation government could not find a solution. Most of the states were unwilling to cooperate. The New England States needed British trade. So they did not want to anger Great Britain. But settlers in the West wanted the Confederation government to do something. Without much power it was helpless.

The Confederation was not completely ineffective. It was able to manage the development of its land in an orderly manner. In 1784 Thomas Jefferson drafted an ordinance for organization of the West. Out of this came the Northwest Ordinance. It was one of the most progressive acts passed during the Confederation Period. Before the Northwest Ordinance, states were undecided as how to manage this territory. It had cause many

arguments in the past. The issue of land even prevented the Articles of Confederation from being ratified until 1781.

But out of this land was to come five states: Ohio, Illinois, Indiana, Wisconsin, and Michigan. The Northwest Ordinance established a system by which a territroy could become a state. It had to go through three stages.

In the first stage the Confederation Congress would select officials to govern. The new Territorial Government would consist of a governor, a secretary, and three judges. They would rule the entire territory.

In the second stage the territory could elect a legislature. The legislature would share its power with the appointed officials. Before a legislature could be elected, the territory had to contain 5,000 adult males.

When the territory reached a population of 60,000 adult males, it could apply for statehood. This was the third stage. Once a state drew up its Constitution, it could be admitted to the Union. Each state was admitted on equal status.

As you know, the Articles of Confederation were replaced by the Constitution. But the new government under the Federal System of Government was to have its own problems. One of the major problems was the failure of the Constitution to clearly define federal and state powers. This conflict developed over the role of the federal government. Some felt it should be strong. Others felt it should be weak. Those who supported a weak central government were called states' rightists. But what exactly is states' rights? it is a political theory that calls for increasing

the power of the states. At the same time it also calls for limiting the power of the central government.

An example of the states' rights theory was the Kentucky and Virginia Resolutions. They brought about the first states' rights movement. The Kentucky and Virginia Resolutions were issued to prevent the Alien and Sedition Acts from going into effect.

Why did the federal government issue the Alien and Sedition Acts? After the new government was established, a new political party developed. It was called the Federalist Party. But many people disliked some of their beliefs. Among those who disliked the Federalist Party were Thomas Jefferson and James Madison. For example, Jefferson and Madison disliked the Federalists' opinions of France. The Federalists wanted the United States to break its foreign relations with France. This became very evident between 1790-1800. During this period tension with France increased. The French began seizing American ships. Congress responded by having American ships seize French vessels.

Jefferson and his followers were not in favor of a war with France. Instead Jefferson wanted the United States to negotiate a peace. When President Adams sent a foreign minister to seek peace, the French refused to see him. This greatly angered the Federalists.

During this same period many immigrants from France entered this country. Some feared that if a war broke out they would side with France. The Federalists tried to prevent such an event from happening. They used this opportunity to silence their critics. During June and July 1798 they passed a series of repressive acts. They were known as the Alien

and Sedition Acts. The least offensive of these laws was the Naturalization Act. It increased the time one had to be in the United States before becoming a citizen. The period went from five to 14 years.

A second act was the Alien Enemies Act. It gave the President extreme power. He could expel people from the United States who were not citizens if he thought they were enemies. This act was designed especially for French immigrants. If they rebelled against the United States, they could be sent back to France. The President had this power only if the United States was at war.

A third act was the Alien Act. It gave the President the power to expel "dangerous" aliens. If the President thought the peace and safety of the United States was at stake, he could use it. This caused many aliens to leave. They feared Adams might use it against them.

Finally, there was the Sedition Act. It was the most drastic of these laws. People who criticized the President or Congress could be fined or imprisoned. This applied to all people. This meant it was against the law to criticize the federal government. People criticized the Alien and Sedition Laws for taking away their freedom of speech. Some thought the Bill of Rights had been violated.

The most drastic affect of this new law was yet to come. In 1800 there was to be a presidential election. The Federalists used the law to silence newspapers who were against them. Twenty-five persons were tried. However, only ten were sent to prison. In a typical case editor Thomas Cooper was sentenced to six months in jail and fined $400. In other words President Adams used the law against his political enemies.

To Thomas Jefferson the Alien and Sedition Acts were unconstitutional. They were in violation of the First Amendment. In the First Amendment freedom of speech and press are guaranteed. Jefferson also felt it was a violation of states' rights. In Jefferson's opinion states had created the federal government. Therefore, it was possible for them to overrule laws that were unconstitutional.

James Madison was in full agreement with Jefferson. They decided to draw up a resolution condemning the laws. Jefferson presented his to the Kentucky Legislature. It said the Constitution was a compact of independent states. Each state had the right to determine whether the compact had been violated. In other words the state could declare a law of Congress unconstitutional. Kentucky declared the Alien and Sedition Acts illegal.

Madison presented his resolution to the Virginia Legislature. It was similar to the resolution presented by Jefferson. The Virginia Resolution was also strongly based on the states' rights theory. It said a state could judge whether the federal government had gone beyond its power. If the central government goes too far, the law can be declared illegal. Like Kentucky, Virginia declared the Alien and Sedition Acts unconstitutional.

Why can this be considered an example of states' rights? The Kentucky and Virginia Resolutions stated that the power of the federal government should be limited. This meant that the power of the state government had to be increased. This was done by giving each state the right to decide whether a law had gone too far. If it has, then it does not

have to obey it. For this reason the Kentucky and Virginia Resolutions are an example of states' rights.

# APPENDIX C

## TEXTBOOK APPROACH ARRANGED IN REVERSE CHRONOLOGICAL ORDER

## Changing Governmental Systems

During the past 200 years our governmental system has undergone several changes. Many conflicts have resulted in the process. One such problem resulted over interpretation of powers. The Constitution had failed to clearly define federal and state powers. This conflict developed over the role of the federal government. Some felt it should be strong. Others felt it should be weak. Those who supported a weak central government were called states' rightists. But what exactly is states' rights? It is a political theory that calls for increasing the power of the states. At the same time it also calls for limiting the power of the central government.

Do not become confused over the terms state and central governments. In the United States the central government is called either the national or federal government. In England the central or national government is called Parliament. Of course, state governments mean the power each of our fifty states has.

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Why did the federal government issue the Alien and Sedition Acts? After the new government was established, a new political party developed. It was called the Federalist Party. But many people disliked some of their beliefs. Among those who disliked the Federalist Party were Thomas

Jefferson and James Madison. For example, Jefferson and Madison disliked the Federalists' opinions of France. The Federalists wanted the United States to break its foreign relations with France. This became very evident between 1790-1800. During this period tension with France increased. The French began seizing American ships. Congress responded by having American ships seize French vessels.

Jefferson and his followers were not in favor of a war with France. Instead Jefferson wanted the United States to negotiate a peace. When President Adams sent a foreign minister to seek peace, the French refused to see him. This greatly angered the Federalists.

During this same period immigrants from France entered this country. Some feared that if a war broke out they would side with France. The Federalists tried to prevent such an event from happening. They used this opportunity to silence their critics. During June and July 1798 they passed a series of repressive acts. They were known as the Alien and Sedition Acts. The least offensive of these laws was the Naturalization Act. It increased the time one had to be in the United States before becoming a citizen. The period went from five to 14 years.

A second act was the Alien Enemies Act. It gave the President extreme power. He could expel people from the United States who were not citizens if he thought they were enemies. This act was designed especially for French immigrants. If they rebelled against the United States, they could be sent back to France. The President had this power only if the United States was at war.

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Other changes have occurred in our governmental system. Since the American Revolution in 1776, the people in the United States have experienced several changes in the political make-up of their government. For example, after the American Revolution our newly independent nation established what is known as the Articles of Confederation 1781-1789. But the Confederation government proved to be ineffective. People like George Washington, John Adams, and others felt that changes had to be made. If changes were not made, the government might not last. In 1785 these problems brought decisive action. Several states called a convention to handle common problems. From this convention other states began to see a

need to change the Articles of Confederation. The changes that occurred created a new governmental system. It was known as the Federal System of Government. Federalism divides power between the central government (Congress) and the state governments. Each level of government (central or state) has its own independent powers. But neither level of government gets its power from the other. It generally comes from a written constitution. Therefore, neither the central or state government controls a major portion of the power.

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The ineffectiveness of the Articles of Confederation was apparent. The Confederation Congress could not solve many of the major problems that faced the new nation. Taxes were too high. States were getting into more debt. Trade agreements were ineffective. Several states decided to handle their own problems. They could not depend upon the Confederation government, because it was too weak.

Men from Maryland and Virginia met in Alexandria in 1785. They wanted to settle a quarrel over the use of the Potomac River. Out of this meeting came the desire for further reform. If Virginia and Maryland could handle their problems successfully, why not other states? So they invited all states to a conference at Annapolis, Maryland in September 1786. This conference was to deal with problems states were having. Delegates from only five states came. It was disappointing for those who wanted reform. With such a small number, it was difficult to propose any change.

But the mood was right for reform. One man at the Annapolis Convention was a young New York lawyer named Alexander Hamilton. He was convinced that only a stronger central government could keep the nation together. Instead of accepting the failure of this meeting, he proposed another convention. It was to meet at Philadelphia. Its subject would be constitutional reform. The Annapolis Convention approved his suggestion. Even the Confederation Congress gave its approval.

The men who met in Philadelphia had to decide what changes should be made. They were not all in agreement. Some delegates only wanted minor changes in the Articles of Confederation. Some called for a stronger central government. But this meant writing a new constitution. Those who wanted a stronger government were not even in agreement. Some wanted to abolish the states. Others wanted the states to have only limited power. It was up to the delegates to decide what changes would be made.

By May 25, 1787 delegations from seven of the thirteen states had arrived. It was enough to open the convention. The South had the largest representation at the convention. Fourteen of them worked throughout the convention. New England's representation was the smallest. Only six New Englanders signed the Constitution. Delegates who favored a strong central government were called Federalists. These men held private meetings before the convention opened. It was their plan to replace the Articles of Confederation. In its place was to be a new constitution. Therefore, when the convention opened. the Federalists took command.

Their organization paid off from the start. The first move by the Federalists was to elect George Washington as the presiding officer.

George Washington supported the need for a stronger central government. His influence would help pass the needed reform.

One of the first acts of the convention resulted in a new form of government. It began when Governor Edmund Randolf of Virginia introduced the Virginia Plan. It called for the establishment of a national government. This plan placed most of the power in the hands of the central government. Most of the Federalist delegates were impressed with the plan. However, Randolf's resolution created a serious problem. It meant completely doing away with the Articles of Confederation. But since the Federalists had control, it was agreed to discard the Articles. Now, a new form of government had to be worked out.

The Virginia Plan raised a serious question. How would the power be divided? The large states (in population) wanted a national government. The representation would be determined on the basis of population. The small states (in population) were opposed to this idea. They wanted one representative for each state. To them, the population of a state was unimportant.

In the Virginia Plan, the Federalists proposed a strong central government. It was different from the Confederation government. The power came from the people rather than the states. The central government would get its power from the National Legislature. The National Legislature would have an upper and lower house. The people of each state would elect members to the lower house. The members of the lower house would, then, choose the members of the upper house. The members of the National Legislature would be decided by population of a state. This plan favored the large states.

The small states preferred another plan. It was known as the New Jersey Plan. They did not want the states to give up their power to the national government. The small states, then, wanted states to be presented as equals in the National Legislature. Furthermore, they wanted the states to control the central government. Their plan resembled the Articles of Confederation. However, it did give more power to the central government.

The Virginia and New Jersey plans presented the convention with two different alternatives. One wanted a strong central government with representation based on population. The other called for a weak central government with equal representation for all states. A compromise had to be worked out. Oliver Ellsworth offered a plan that brought opponents together. The compromise suggested the lower house decide its membership on the basis of population. In the upper house representation would be equal. The lower house was called the House of Representatives. And the upper house was known as the Senate. This compromise helped create the Federal System of Government. With the other changes that came out of the convention, the Federal System of Government was created. Federalism had replaced the Confederation.

Since we have just discussed federalism, what do we mean by a confederation? Is it similar or different from federalism? Between 1781-1789 our government was run by the Articles of Confederation.

What do we mean by a confederation form of government? It is a system of government in which the states have most of the power. As a result, the central government is weak.

As you can tell, a confederation is very different from federalism. Under the Articles each level of government did not have independent power. The central government had only those powers given to it by the states. This is not true under federalism; the power is divided.

Another difference between the two was their source of power. In a confederation the state is the primary source of power. The state keeps all power except that given to the central government. This is not true with federalism. The source of power is the Constitution. It determines who will have what powers.

Still another difference is the division of power. In Federalism the power is divided. Neither the state or federal government has a major portion. Under the Articles the states had most of the power.

To understand our definition of confederation, we must look at an example. The Articles of Confederation is such an example. Under a confederation the states have the majority of power. The framers of the Articles deliberately made the national government weak. They feared the central government might become too strong.

The Articles provided for the national government with a Congress. The Confederation Congress consisted of one house. Its members were appointed by the state. What were some of the powers given the Confederation Congress? It would perform all national functions. It would maintain an Army and Navy. It would conduct foreign affairs. It could also declare war and issue currency.

The important point about the Articles was it gave all the power to the states. The states had more power than the Confederation Congress.

The Confederation Congress had no power to tax. This could be done only by the states. To get money, Congress had to ask the states. The Articles did not establish national courts. Power of enforcement belonged to the states. The national government had no power to enforce laws. It could only handle matters that dealth with specific disputes between states. Therefore, each state was obligated to honor the laws of the other states. But there was no guarantee that this would happen. These powers were denied the Confederation government, because the states feared the central government would become too strong.

What were some of the problems of the Confederation Period? One of the major problems of the Confederation was finances. It had to depend upon the states for support. States were unwilling to pay the federal government any money. Many states had their own financial problems. The American Revolution left many states in debt. But the Confederation government was also in debt. It had borrowed money from other countries to fight the American Revolution. Now, it had to pay them back. This debt caused pressure on the states. They responded by printing their own money. In some states taxes were greatly increased.

All this caused people to react. There were outbreaks of violence in several states. Financial difficulties caused violence to erupt in Massachusetts. Heavy taxes fell hardest on the farmer. One third of their income was taken by taxes. People lost their land. Others went to prison because they could not pay. People became angry at the high taxes. Mobs took the law into their own hands. They tried to prevent courts from taking away the farmers land. Daniel Shays was the leader of these rebels. He marched to the state capital in an attempt to change

the law. But this rebellion was put down. Massachusetts appealed to the Confederation Congress for help. But it did not have the power to do any thing.

Another major problem under the Articles of Confederation was foreign affairs. The national government could negotiate treaties and alliances. But this did not mean states had to follow the treaties. In many instances some states ignored certain parts of commercial treaties. For this and other reasons, the national government lacked sufficient power to conduct foreign affairs. This deficiency made it difficult for the Confederation government. The new nation had to depend on other counties for its survival. Therefore, it had to seek foreign aid. But foreign nations like France, Great Britain, and Spain realized the weakness of the Confederation.

Its most serious problems were with Great Britain. One of the problems centered around trade. Great Britain saw the United States as a rival. Therefore, American ships could not enter some of Great Britain's ports. America needed to trade with Great Britain. They needed manufactured goods like tools, pots, pans, and other hardware.

Even worse yet, Great Britain still kept troops in the United States. This was in violation of the Treaty signed after the War for Independence. The presence of British troops greatly angered Westerners. They wanted to settle in some of the areas where British troops were. Westerners also thought British troops were selling arms to the Indians. This, they felt encouraged raids on frontier settlements. The Confederation government could not find a solution. Most of the states were unwilling to

cooperate. The New England States needed British trade. So they did not want to anger Great Britain. But settlers in the West wanted the Confederation government to do something. Without much power it was helpless.

The Confederation was not completely ineffective. It was able to manage the development of its land in an orderly manner. In 1784 Thomas Jefferson drafted an ordinance for organization of the West. Out of this came the Northwest Ordinance. It was one of the most progressive acts passed during the Confederation Period. Before the Northwest Ordinance, states were undecided as how to manage this territory. It had caused many arguments in the past. The issue of land even prevented the Articles of Confederation from being ratified until 1781.

But out of this land was to come five states: Ohio, Illinois, Indiana, Wisconsin, and Michigan. The Northwest Ordinance established a system by which a territory could become a state. It had to go through three stages.

In the first stage the Confederation Congress would select officials to govern. It would consist of a governor, a secretary, and three judges. They would rule the entire territory.

In the second stage the territory could elect a legislature. The legislature would share its power with the appointed officials. Before a legislature could be elected, the territory had to contain 5,000 adult males.

When the territory reached a population of 60,000 adult males, it could apply for statehood. This was the third stage. Once a state drew up its Constitution, it could be admitted to the Union. Each state was admitted on equal status.

# APPENDIX D

## FRAYER MODEL ARRANGED IN TOPICAL ORDER

## Changing Governmental Systems

Since the American Revolution in 1776, the people of the United States have experienced several changes in the political make-up of their government. For example, after the American Revolution our newly independent nation established what is known as the Articles of Confederation (1781-1789). But for a number of reasons, the Articles of Confederation did not work. However, our Founding Fathers (George Washington, Benjamin Franklin, John Adams and Thomas Jefferson) attempted to correct the weaknesses of the Articles of Confederation by writing a new constitution. Out of this new experiment in government came the Federal System of Government. This system is also called federalism.

What do we mean when we say the Federal System of Government? A Federal System of Government may be described as one in which power is divided between a central government and state governmental units. Each of these governments has specific authority to deal with certain matters. But neither level of government, central or regional, gets its power from the other. It generally comes from a written constitution.

Do not become confused over the terms regional and central governments. In the United States the central government is called either the national or federal government. In England the central or national government is called Parliament. Regional governments in the United States are called states. In Canada the regional governments are called provinces.

This definition by itself might not mean much. However, the following example might help clear matters up. Imagine for a moment that the

federal government believed that your school should be in session for twelve months out of the year. Could the federal government force your school to do this?

The answer to this question would of course be no. Your state, under the Federal System of Government, is responsible for operating the schools. This is an independent power given to the state. Therefore, the federal government cannot interfere with the state's law.

Each example of federalism must have these four essential points. Without these, the example cannot be federalism.

(1) The power must be divided between the federal or central government and the state governments.

(2) Each level of government, central or regional, has its own independent powers.

(3) Neither the central or regional governments receives its power from the other. Both receive it from a common source. Generally, it is a written constitution.

(4) Neither the federal or state government controls a major portion of the power.

Therefore, before a system of government can be called federalism, it must have at least these four points.

Did our previous example have the four essential points? Obviously, there was a division of power. The Constitution has created this division. The Constitution gave the responsibility for operating the schools to the state. This is not a power of the federal government. This is also an example of independent power. Each level of government has its own specific powers. These duties have been delegated from a common source, the Constitution. The Constitution also provides for a balance of power. Neither the state or the federal government will have a ma[illegible]

portion of the power. Our example, then, has all four points. Therefore, it is an example of federalism.

Let's consider another example of federalism. The Supreme Court case of McCulloch v. Maryland (1819) involved the Second Bank of the United States. It had been founded in 1816, five years after the charter of the First Bank of the United States had expired. The federal government was given the power to establish banks in the "necessary and proper" clause of the Constitution.

The Bank of the United States had its main office in Philadelphia. It also had several branches in other cities throughout the country. The federal government placed one of its branch banks in Baltimore. The state of Maryland attempted to drive the Baltimore bank out of business by taxing it. The president of the Baltimore bank refused to pay the tax. When this happened, the state threatened to send him to prison. But the president of the bank took his case to court. Eventually the case got to the Supreme Court. The Supreme Court ruled that Congress could set up a bank and that states did not have the power to tax it. The Supreme Court felt that the "implied powers" clause of the Constitution gave the federal government this power.

To make sure that McCulloch v. Maryland is an example of federalism, we must compare it to the four essential points we established. The first point stated that power must be divided between the federal and state government. Is there a division of power? Yes, the case went to the Supreme Court; because the division of power was unclear. Did the federal or state government have the correct position? The state of

Maryland wished to tax the bank. But the federal government said it did not have the power. The Supreme Court decided in favor of the federal government. A division of power was established.

Point two states that each level of government (federal or state) has its own independent powers. In this example do both the federal and state government have independent power? Yes, both have the right to tax. But, as the Supreme Court pointed out, the state cannot tax a federal bank. This does not mean the state of Maryland loses its power to tax. It means only that it cannot tax the Bank of the United States. Therefore, each level of government does have independent powers.

The third point deals with the source of power. It states that neither the federal or state government recieves its power from the other. Both receive their power from a common source, the Constitution. In our example, the federal government did not just create the Bank of the United States. The power was given to it by the Constitution.

The last essential point dealt with the separation of power. It stated that neither the federal or state government controls a major portion of the power. In our example, neither the state or federal government had the majority of power. The power of taxation is divided between both levels.

Our example of the Supreme Court case of McCulloch v. Maryland does have the four essential points. Therefore, it is an example of federalism. Can you think of an example that would not fit our definition? What about the British government? It has a central government which is called Parliament. It also has regional governments called borroughs.

Therefore, it does have a division of power between a central and regional government. Does this make it a Federal System of Government? No, it must have the other essential points. Without them it is not federalism. We must determine whether this example has the other three points.

Does each level of government have its own independent powers? Yes, Parliament does provide that each separate borrough has independent power. On the first two points the British system could be called federalism.

However, on the third point the two forms of government greatly differ. You will remember that in a Federal System neither the central or regional government receives its power from the other. In Great Britain this is not true. Parliament decides what powers each borrough will have.

The two systems of government also greatly differ on point four. In the British form of government Parliament controls the major portion of power. This is not true with federalism. Neither the central or regional government has a major portion of the power.

Therefore, the British form of government could not be called federalism. It does not have the four essential requirements to be federalism. Just because they were similar on the first two points does not make it federalism. Unless it has all four, it is not a Federal System of Government.

Earlier the Articles of Confederation were mentioned. Between 1781-1789 our government was run by them. This type of government is known as a confederation. Can the Articles be considered an example of federalism? Before we can answer that question, we must know what a confederation is. It is a system of government in which the states have most of

the power. As a result, the central government is weak.

As you can tell, this is not an example of federalism. First, each level of government does not have independent power. The central government has only those powers given to it by the state. For example, the central government under the Articles had no power to tax. Only the state could tax.

A second difference between the two was their source of power. In a confederation the state is the primary source of power. The state keeps all power except that given to the central government. For example, the Articles gave the states power to coin money. This meant it was possible to have thirteen different one dollar bills. This is not true with federalism. The source of power is the Constitution. It determines who will have what power.

A third difference is the division of power. In federalism the power is divided. Neither the state or federal government has a major portion. Under the Articles the states had most of the power. With these differences it is impossible for the Articles to be an example of federalism.

But like federalism, a confederation has essential points. These points help distinguish it from all other forms of government.

(1) States have all power except that given to the central government.

(2) The central government has very little power.

(3) The central government has no power to enforce laws.

(4) The central government handles matters of common concern.

All examples of a confederation must have all four points.

These essential points do not mean much by themselves. However, the following example might help clear up matters. The student council at your school is an example of government. But is it an example of a confederation? To answer this question, we must compare the two. Who has the most power in a student government? In most schools it is the principal. The students have very little power. The principal, then, has powers similar to a strong central government. This is just the opposite of a confederation. In a confederation there can be no strong central government. For instance, in most schools students could not change the dress code without the principal's approval. It could only be done with the principal's approval. In a confederation the students would not need the principal's approval. The power would come from the students. It would not come from the principal.

Does this example have all four essential points? No, it does not. One of the essential points states that the central government (the principal) must be weak. In our example he is very strong. Therefore, it cannot be an example of a confederation. To be an example, it must have all four points. Our example does not.

Why are the Articles of Confederation an example of a confederation? First, does the state have all the power except that given to the central government? Yes, the Articles created the central government. This meant the states did not have a central government until they made one. They gave the central government only limited power. It could raise an Army and Navy. It had the power to conduct foreign relations. It could also declare war. All other power belonged to the states.

Second, under the Articles did the central government have very little power? It had much less power than the states. For example, the central government had no control over commerce. The states controlled commerce. Each state could pass separate laws dealing with commerce. Shoes made in Massachusetts could not be sold in Virginia. The difference in commerce laws made it impossible. The central government had no power to change such laws. It was too weak.

Three, does the central government lack the power to enforce laws? Yes, the Articles did not provide for national courts. Each state merely agreed to follow the law of the other states. But there was no way to enforce this agreement. The central government had no power to settle disputes between states. They had to be solved by the states involved.

Four, did the central government handle matters of common concern? Yes, the central government did handle matters of common concern. Foreign affairs and national defense are just two examples. Without the central government each state would handle its own foreign affairs. States could, then, make treaties with any country. Think of the difficulty this would cause. New York and Pennsylvania could have separate treaties with England. What would happen if England declared war on France? Would both have to send aid? Or would just one state be required to send troops? For this reason the power was given to the central government.

The Articles of Confederation are an example of a confederation. It has all four essential points.

What about our neighbor to the North, Canada? Does it have a confederation? How does their government compare to our example of confederation?

Do the states or in the case of Canada, the provinces, have most of the power? No, the power is divided between the provinces and the central government. The power is divided much like that of our own government.

Does the central government have the power of enforcement? Yes, the central government has this power. Each level of government has a court system. The Canadian Court System is similar to our own. Any dispute between provinces is handled by the central government. This is opposite from a confederation. In a confederation state law is supreme. The central government handles only those cases agreed to by the states involved. It cannot act by itself.

Does the Canadian government handle matters of common concern? Yes, in Canada the central government has this power. It is responsible for national defense. This is a matter of common concern.

Therefore, it is impossible for the Canadian government to be an example of a confederation. They are similar on only one point. To be an example all four must be similar.

On December 20, 1860 South Carolina began a step that would lead to the formation of a new government. It seceded from the United States. By February 4, 1861 six other states had left the Union. One month before Lincoln was to take office they met in Montgomery, Alabama. Their purpose was to form a new government. It would be called the Confederate States of America. Was this new government an example of a confederation?

How does the example compare with our essential points? Did the states have most of the power? Under the Constitution of the Confederate States of America (C.S.A.), the states controlled most of the power.

Was the central government weak? Yes, the central government had much less power than the federal government. The C.S.A. intentionally made the central government weak. This had been one of the reasons they seceded from the Union. The federal government had too much power.

Did the central government have power to enforce laws? No, most of the power of enforcement belonged to the states. The central government had only that power given to it by the states.

Did the central government handle matters of common concern? Yes, its primary duty was to fight the Civil War. Obviously, this was of common concern. It also took care of foreign affairs. The C.S.A. realized this power had to be given to the central government.

The C.S.A. was, then, an example of a confederation. It had all four essential points. We have had two examples of a confederation. The first was the Articles of Confederation. And the second was the Confederate States of America.

One of the issues that brought on the Civil War was states' rights. This conflict developed over the role of the federal government. Some felt it should be strong. Others felt it should be weak. Supporters of the states' rights theory wanted to limit the power of the federal government. But what exactly is states' rights? It is a political theory that calls for increasing the power of the states. At the same time it also calls for limiting the power of the central government.

It has three essential points:

(1) The theory supports an increase in state power.

(2) The theory supports limiting the power of the central government.

(3) The theory can be present in any form of government that has states and a central government.

Let's consider an example of states' rights. Suppose the federal government decided to pass a new law. It said that children could not criticize their parents. If children criticized their parents, they would be sent to prison. But many people in your state opposed the law. Citizens argued it restricted freedom of speech. Your state decided to act. The people of Michigan stated: (1) The states created the federal government. (2) The power of the federal government should be limited. (3) Each state has a right to decide whether a law has gone too far. (4) A state does not have to obey the law if it goes too far. Michigan decided not to obey the law. Is this an example of states' rights? To answer this question we must compare it to our essential points.

Did the citizens of Michigan suggest an increase in state power? Yes, they did. They wanted the state to have the right to decide whether to follow laws passed by Congress. They also said a state does not have to obey federal law. These points indicate that Michigan wanted more power for states.

Did Michigan want to limit federal powers? Yes, Michigan believed the power of the federal government should be limited. Point two clearly states that view.

Is the theory present in a government with a central and state government? Obviously, our governmental system has a central and state governments. Therefore, it conforms to this point. Our example, then, has all three essential points thus making it an example of states' rights.

During the 1870's and 1880's farmers were discontented with problems in the United States. They began demanding national reform. To be

effective they developed political organizations. Eventually, in 1891 they formed the Populist Party. It means the People's Party. They adopted a platform which demanded the following: (1) The government should own and operate railroads, telegraph, and telephone systems. (2) The government should develop a Sub-treasury Plan. Under this plan, farmers could store surplus crops in government warehouses. They could, then, use the crops to borrow money. (3) The government should adopt a graduated income tax. (4) The government should enforce an eight hour working day.

Is the Populist Party platform an example of states' rights? Is there an increase in state power? Just one look at their reforms would tell you, no. They wanted the government to increase its power. One of their points called for government ownership of railroads. The federal government does not have that power today. The Populists also wanted the government to establish an eight hour working day. This would have meant forcing the states to adopt new laws. Obviously, the Populist Party reforms were not an example of states' rights.

The farmers were not the only people interested in reform. In 1828 the federal government passed a new tariff. It imposed high taxes on imports. The Southern states protested, because it made prices higher for them. To them it favored the industries of the North. It protected northern industries while increasing prices in the South. In 1832 Congress tried to lower the Tariff of 1828. But this did not satisfy the South. They denounced both tariffs. To the South they were unjust and oppressive. In reaction South Carolina issued the Ordinance of Nullification. The

Ordinance of Nullification was passed by the state legislature. Nullification gave them the power to overrule the tariff. Is nullification an example of states' rights?

Did the Ordinance of Nullification increase state power? It most certainly did. The ordinance gave the state power to overrule the tariff. This is a power the state did not have before passing the Ordinance of Nullification.

The Ordinance of Nullification also tried to limit the power of the federal government. South Carolina felt Congress had too much power. With the Ordinance of Nullification it tried to reduce the power of the federal government.

The theory of nullification was present in a government that had central and state governments. The United States has a Federal System. Therefore, it has a division. The Ordinance of Nullification is, then, an example of states' rights. It contains all three essential points.

In 1916 Congress passed the Child Labor Laws. They prevented children under the age of 14 from working more than eight hours a day. The federal government applied the laws to all states. Many states at this time did not have child labor laws. Some of them did not want such laws. Despite their refusal, the federal government forced the states to follow these laws.

Is this an example of states' rights? Was there an increase in state power? No, the federal government increased its power over the state. They had to follow the Child Labor Act.

Was the power of the central government limited? Obviously, it was

not. The federal government was increasing its power.

Is there a central and state government in the example? The United States has such a division. Since the Child Labor Laws lack two of the essential points, it can not be an example of states' rights.

APPENDIX E

FRAYER MODEL ARRANGED IN CHRONOLOGICAL ORDER

## Changing Governmental Systems

Since the American Revolution in 1776, the people in the United States have experienced several changes in the political make-up of their government. The first form of government was established after our independence was declared on July 4, 1776. It went into effect in 1781 and lasted until 1789. It was known as the Confederation Period, because the government was created by the Articles of Confederation.

What do we mean by a confederation form of government? It is a system of government in which the states have most of the power. As a result, the central government is weak.

Do not become confused over the terms state and central governments. In the United States the central government is called either the national or federal government. In England the central or national government is called Parliament. Of course, state governments means the power each of our fifty states have.

Our definition of a Confederation can be broken down into four essential parts.

(1) States have all power except that given to the central government.

(2) The central government has very little power.

(3) The central government has no power to enforce laws.

(4) The central government handles matters of common concern.

All examples of a confederation must have all four points. Without these the example cannot be a confederation.

These essential points do not mean much by themselves. However, the following example might help clear up matters. The student council at

your school is an example of government. But is it an example of a confederation? To answer this question, we must compare the two. Who has most of the power in a student government? In most schools it is the principal. The students have very little power. The principal, then, has similar powers a strong central government would have. This relationship is just the opposite of a confederation. For instance, students could not change the dress code. It could only be done with the principal's approval. In a confederation the power would come from the students. Their power would be similar to the power states have. But students do not have this power. Therefore, this difference makes it impossible for your school government to be a confederation.

What about the Articles of Confederation are they an example? First, does the state have all the power except that given to the central government? Yes, the Articles created the central government. This meant the states did not have a central government until they made one. They gave the central government only limited power. It could raise an Army and Navy. It had the power to conduct foreign relations. It could also declare war. All other power belonged to the states.

Second, under the Articles did the central government have very little power? It had much less power than the states. For example, the central government had no control over commerce. The states controlled commerce. Each state could pass separate laws dealing with commerce. Shoes made in Massachusetts could not be sold in Virginia. The difference in commerce laws made it impossible. The central government had no power to change such laws. It was too weak.

Three, does the central government lack the power to enforce laws? Yes, the Articles did not provide for national courts. Each state merely agreed to follow the law of the other states. But there was no way to enforce this agreement. The central government had no power to settle disputes between states. They had to be solved by the states involved.

Four, did the central government handle matters of common concern? Yes, the central government did handle matters of common conern. Foreign affairs and national defense are just two examples. Without the central government each state would handle its own foreign affairs. States could, then, make treaties with any country. Think of the difficulty this would cause. New York and Pennsylvania could have separate treaties with England. What would happen if England declared war on France? Would both have to send aid? Or would just one state be required to send troops? For this reason the power was given to the central government.

The Articles of Confederation are an example of a confederation. It has all four essential points.

On December 20, 1860 South Carolina began a step that would lead to the formation of a new government. It seceded from the United States. By February 4, 1861 six other states had left the Union. One month before Lincoln was to take office they met in Montgomery, Alabama. Their purpose was to form a new government. It would be called the Confederate States of America. Was this new government an example of a confederation?

How does the example compare with the essential points? Did the states have most of the power? Under the Constitution of the Confederate States of America (C.S.A.), the states controlled most of the power.

Was the central government weak? Yes, the central government had much less power than the federal government. The C.S.A. intentionally made the central government weak. This had been one of the reasons they seceded from the Union. The federal government had too much power.

Did the central government have power to enforce laws? No, most of the power of enforcement belonged to the states. The central government had only that power given to it by the states.

Did the central government handle matters of common concern? Yes, its primary duty was to fight the Civil War. Obviously, this was of common concern. It also took care of foreign affairs. The C.S.A. realized this power had to be given to the central government.

The C.S.A. was, then, an example of a confederation. It had all four essential points.

What about our neighbor to the North, Canada? Does it have a confederation? How does their government compare to our example of confederation? Do the states or in the case of Canada, the provinces, have most of the power? No, the power is divided between the provinces and the central government. The power is divided much like that of our own government.

Does the central government have the power of enforcement? Yes, the central government has this power. Each level of government has a court system. The Canadian Court System is similar to our own. Any dispute between provinces is handled by the central government. This is opposite from a confederation. In a confederation state law is supreme. The central government handles only those cases agrred to by the states involved. It cannot act by itself.

Does the Canadian government handle matters of common concern? Yes, in Canada the central government has this power. It is responsible for national defense. This is a matter of common concern.

Therefore, it is impossible for the Canadian government to be an example of a confederation. They are similar on only one point. To be an example all four must be similar.

As you know, the United States once had a Confederation form of government (1781-1789). But for a number of reasons the Articles of Confederation did not work. However, our Founding Fathers (George Washington, Benjamin Franklin, John Adams, and Thomas Jefferson) attempted to correct the weaknesses of the Articles of Confederation by writing a new constitution. Out of this new experiment in government came the Federal System of Government. This system is also called federalism.

What do we mean when we say the Federal System of Government? A Federal System of Government may be described as one in which power is divided between a central government and regional governmental units. Each of these governments has specific authority to deal with certain matters. But neither level of government, central or regional, gets its power from the other. It generally comes from a written constitution.

Do not become confused over the term regional government. Regional governments in the United States are called states. In Canada the regional governments are called provinces.

This definition by itself might not mean much. However, the following example might help clear matters up. Imagine for a moment that the federal government believed that your school should be in session for

twelve months out of the year. Could the federal government force your school to do this?

The answer to this question would of course be no. Your state, under the Federal System of Government, is responsible for operating the schools. This is an independent power given to the state. Therefore, the federal government cannot interfere with the state's law.

Each example of federalism must have these four essential parts. Without these the example cannot be federalism.

(1) The power must be divided between the federal (central) government and the state governments.

(2) Each level of government, central or regional, has its own independent powers.

(3) Neither the central or regional government receives its power from the other. Both receive it from a common source. Generally, it is a written constitution.

(4) Neither the federal or state government controls a major portion of the power.

Therefore, before a system of government can be called federalism, it must have at least these four points.

Did our previous example have the four essential points? Obviously, there was a division of power. The Constitution has created this division. The Constitution gave the responsibility for operating the schools to the state. This is not a power of the federal government. This is also an example of independent power. Each level of government has its own specific powers. These duties have been delegated from a common source, the Constitution. The Constitution also provides for a balance of power. Neither the state or the federal government will have a major

portion of the power. Our example, then, has all four points. Therefore, it is an example of federalism.

What about the Articles of Confederation, are they an example of federalism? There was a division between the central and state government. So it conforms to the first point. But this by itself does not make it an example.

Did each level have its own independent powers? No, the states decided what powers the central government would have.

Did both receive their power from a common source? No, the states had full power. In fact they created the central government. Therefore, there is no common source of power.

Does the federal or state government control a major portion of power? Yes, the states have the majority of power. Therefore, the Articles of Confederation cannot be an example of federalism. It does not have all the essential points.

Let's consider another example of federalism. The Supreme Court case of McCulloch v. Maryland (1819) involved the Second Bank of the United States. It had been founded in 1816. This was five years after the charter of the First Bank of the United States had expired. The federal government was given the power to establish banks in the "necessary and proper" clause of the Constitution.

The Bank of the United States had its main office in Philadelphia. It also had several branches in other cities throughout the country. The federal government placed one of its branch banks in Baltimore. The state of Maryland attempted to drive the Baltimore bank out of business

by taxing it. The president of the Baltimore bank refused to pay the tax. When this happened, the state threatened to send him to prison. But the president of the bank took his case to court. Eventually, the case got to the Supreme Court. The Supreme Court ruled Congress could set up a bank and that states did not have the power to tax it. The Supreme Court felt that the "implied powers" clause of the Constitution gave the federal government this power.

To make sure that McCulloch v. Maryland is an example of federalism, we must compare it to the four essential points we established. The first point stated that power must be divided between the federal and state government. Is there a division of power? Yes, the case went to the Supreme Court; because the division of power was unclear. Did the federal or state government have the correct position? The state of Maryland wished to tax the bank. But the federal government said it did not have the power. The Supreme Court decided in favor of the federal government. A division of power was established.

Point two states that each level of government (federal or state) has its own independent powers. In this example do both the federal and state government have independent power? Yes, both have the right to tax. But, as the Supreme Court pointed out, the state cannot tax a federal bank. This does not mean the state of Maryland loses its power to tax. It means only that it cannot tax the Bank of the United States. Therefore, each level of government does have independent powers.

The third point deals with the source of power. It states that neither the federal or state government receives its power from the other.

Both receive their power from a common source, the Constitution. In our example, the federal government did not just create the Bank of the United States. The power was given to it by the Constitution.

The last essential point dealt with the separation of power. It stated that neither the federal or state government controls a major portion of the power. In our example, neither the state or federal government had the majority of power. The power of taxation is divided between both levels.

Our example of the Supreme Court case of McCulloch v. Maryland does have the four essential points. Therefore, it is an example of federalism. Can you think of another example that would not fit our definition? What about the British government? It has a central government which is called Parliament. It also has regional governments called borroughs. Therefore, it does have a division of power between a central and regional government. Does this make it a Federal System of Government? No, it must have the other three essential points. Without them it is not federalism. We must determine whether this example has the other three points.

Does each level of government have its own independent powers? Yes, Parliament does provide that each separate borrough has independent power. On the first two points the British system could be called federalism.

However, on the third point the two forms of government greatly differ. You will remember that in a Federal System neither the central or regional government receives its power from the other. In Great Britain this is not true. Parliament decides what powers each borrough will have.

The two systems of government also greatly differ on point four.

In the British form of government Parliament controls the major portion of power. This is not true with federalism. Neither the central or regional government has a major portion of the power.

Therefore, the British form of government could not be called federalism. It does not have the four essential requirements to be federalism. Just because they were similar on the first two points does not make it federalism. Unless it has all four, it is not a Federal System of Government.

The Federal System of Government has not been without criticism. Like most forms of government there have been problems. One of the major problems was the failure of the Constitution to clearly define federal and state powers. This was one issue which helped bring on the Civil War. This conflict developed over the role of the federal government. Some felt it should be strong. Others felt it should be weak. Supporters of the states' rights theory wanted to limit the power of the federal government. But what exactly is states' rights? It is a political theory that calls for increasing the power of the states. At the same time it also calls for limiting the power of the central government.

It has three essential points:

(1) The theory supports an increase in state power.

(2) The theory supports limiting the power of the central government.

(3) The theory can be present in any form of government that has states and a central government.

Let's consider an example of states' rights. Suppose the federal government decided to pass a new law. It said that children could not

criticize their parents. If children criticized their parents, they would be sent to prison. But many people in your state opposed the law. Citizens argued it restricted freedom of speech. Your state decided to act. The people of Michigan stated: (]) The states created the federal government. (2) The power of the federal government should be limited. (3) Each state has a right to decide whether a law has gone too far. (4) A state does not have to obey the law if it goes too far. Michigan decided not to obey the law. Is this an example of states' rights? To answer this question we must compare it to our essential points.

Did the citizens of Michigan suggest an increase in state power? Yes, they did. They wanted the state to have the right to decide whether to follow laws passed by Congress. They also said a state does not have to obey federal law. These points indicate that Michigan wanted more power for states.

Did Michigan want to limit federal power? Yes, Michigan believed the power of the federal government should be limited. Point two clearly states that view.

Is the theory present in a government with a central and state government? Obviously, our gcvernmental system has a central and state governments. Therefore, it conforms to this point. Our example, then, has all three essential points thus making it an example of states' rights.

A similar situation like this arose in the 1820's. In 1828 the federal government passed a new tariff. It imposed high taxes on imports. The Southern states protested, because it made prices higher for them. To them it favored the industries of the North. It protected northern

industries while increasing prices in the South. In 1832 Congress tried to lower the Tariff of 1828. But this did not satisfy the South. They denounced both tariffs. To the South they were unjust and oppressive. In reaction South Carolina issued the Ordinance of Nullification. The Ordinance of Nullification was passed by the state legislature. Nullification gave them the power to overrule the tariff. Is nullification an example of states' rights?

Did the Ordinance of Nullification increase state power? It most certainly did. The ordinance gave the state power to overrule the tariff. This is a power the state did not have before passing the Ordinance of Nullification.

The Ordinance of Nullification also tried to limit the power of the federal government. South Carolina felt Congress had too much power. With the Ordinance of Nullification it tried to reduce the power of the federal government.

The theory of nullification was present in a government that had central and state governments. The United States has a Federal System. Therefore, it has a division. The Ordinance of Nullification is, then, an example of states' rights. It contains all three essential points.

South Carolina was not the only one interested in reform. During the 1870's and 1880's farmers were upset with problems in the United States. They began demanding national reform. To be effective they developed political organizations. Eventually, in 1891 they formed the Populist Party. The Populist Party means the People's Party. They adopted a platform which demanded the following: (1) The government

should own and operate railroads, telegraph, and telephone systems. (2) The government should develop a Sub-treasury Plan. Under this plan, farmers could store surplus crops in government warehouses. They could, then, use the crops to borrow money. (3) The government should adopt a graduated income tax. (4) The government should enforce an eight hour working day.

Is the Populist Party platform an example of states' rights? Is there an increase in state power? Just one look at their reforms would tell you, no. They wanted the government to increase its power. One of their points called for government ownership of railroads. The federal government does not have that power today. The Populists also wanted the federal government to establish an eight hour working day. This would have meant forcing the states to adopt new laws. Obviously, the Populist Party reforms were not an example of states' rights.

In 1916 Congress passed the Child Labor Laws. They prevented children under the age of 14 from working more than eight hours a day. The federal government applied the laws to all states. Many states at this time did not have child labor laws. Some of them did not want such laws. Despite their refusal, the federal government forced the states to follow these laws.

Is this an example of states' rights? Was there an increase in state power? No, the federal government increased its power over the state. They had to follow the Child Labor Act.

Was the power of the central government limited? Obviously, it was not. The federal government was increasing its power.

Is there a central and state government in the example? The United States has such a division. Since the Child Labor Laws lack two of the essential points, it cannot be an example of states' rights.

# APPENDIX F

## FRAYER MODEL ARRANGED IN REVERSE CHRONOLOGICAL ORDER

## Changing Governmental Systems

Since the American Revolution in 1776, the people in the United States have experienced several changes in the political make-up of their government. For example, after the American Revolution our newly independent nation established what is known as the Articles of Confederation (1781-1789). But for a number of reasons, the Articles of Confederation did not work. However, our Founding Fathers (George Washington, Benjamin Franklin, John Adams and Thomas Jefferson) attempted to correct the weaknesses of the Articles of Confederation by writing a new constitution. Out of this new experiment in government came the Federal System of Government. This system is also called federalism.

What do we mean when we say the Federal System of Government? A Federal System of Government may be described as one in which power is divided between a central government and regional governmental units. Each of these governments has specific authority to deal with certain matters. But neither level of government, central or regional, gets its power from the other. It generally comes from a written constitution.

Do not become confused over the terms regional and central governments. In the United States the central government is called either the national or federal government. In England the central or national government is called Parliament. Regional governments in the United States are called states. In Canada the regional governments are called provinces.

This definition by itself might not mean much. However, the following example might help clear matters up. Imagine for a moment that the

federal government believed that your school should be in session for twelve months out of the year. Could the federal government force your school to do this?

The answer to this question would of course be no. Your state, under the Federal System of Government, is responsible for operating the schools. This is an independent power given to the state. Therefore, the federal government cannot interfere with the state's law.

Each example of federalism must have these four essential parts. Without these the example cannot be federalism.

(1) The power must be divided between the federal (central) government and the state government.

(2) Each level of government, central or regional, has its own independent powers.

(3) Neither the central or regional government receives its power from the other. Both receive it from a common source. Generally, it is a written constitution.

(4) Neither the federal or state government controls a major portion of the power.

Therefore, before a system of government can be called federalism, it must have at least these four points.

Did our previous example have the four essential points? Obviously, there was a division of power. The Constitution has created this division. The Constitution gave the responsibility for operating the schools to the state. This is not a power of the federal government. This is also an example of independent power. Each level of government has its own specific powers. These duties have been delegated from a common source, the Constitution. The Constitution also provides for a balance of power. Neither the state or the federal government will have a major

portion of the power. Our example, then, has all four points. Therefore, it is an example of federalism.

Can you think of another example that would not fit our definition? What about the British government? It has a central government which is called Parliament. It also has regional governments called borroughs. Therefore, it does have a division of power between a central and regional government. Does this make it a Federal System of Government? No, it must have the other three essential points. Without them it is not federalism. We must determine whether this example has the other three points.

Does each level of government have its own independent powers? Yes, Parliament does provide that each separate borrough has independent power. On the first two points the British system could be called federalism.

However, on the third point the two forms of government greatly differ. You will remember that in a Federal System neither the central or regional government receives its power from the other. In Great Britain this is not true. Parliament decides what powers each borrough will have.

The two systems of government also greatly differ on point four. In the British form of government Parliament controls the major portion of power. This is not true with federalism. Neither the central or regional government has a major portion of the power.

Therefore, the British form of government could not be called federalism. It does not have the four essential requirements to be federalism. Just because they were similar on the first two points does not make it federalism. Unless it has all four, it is not a Federal System of Government.

Let's consider another example of federalism. The Supreme Court case of McCulloch v. Maryland (1819) involved the Second Bank of the United States. It had been founded in 1816. This was five years after the charter of the First Bank of the United States had expired. The federal government was given the power to establish banks in the "necessary and proper" clause of the Constitution.

The Bank of the United States had its main office in Philadelphia. It also had several branches in other cities throughout the country. The federal government placed one of its branch banks in Baltimore. The state of Maryland attempted to drive the Baltimore bank out of business by taxing it. The president of the Baltimore bank refused to pay the tax. When this happened, the state threatened to send him to prison. But the president of the bank took his case to court. Eventually, the case got to the Supreme Court. The Supreme Court ruled Congress could set up a bank and that states did not have the power to tax it. The Supreme Court felt that the "implied powers" clause of the Constitution gave the federal government this power.

To make sure that McCulloch v. Maryland is an example of federalism, we must compare it to the four essential points we established. The first point stated that power must be divided between the federal and state government. Is there a division of power? Yes, the case went to the Supreme Court; because the division of power was unclear. Did the federal or state government have the correct position? The state of Maryland wished to tax the bank. But the federal government said it did not have the power. The Supreme Court decided in favor of the federal

government. A division of power was established.

Point two states that each level of government (federal or state) has its own independent powers. In this example do both the federal and state government have independent power? Yes, both have the right to tax. But, as the Supreme Court pointed out, the state cannot tax a federal bank. This does not mean the state of Maryland loses its power to tax. It means only that it cannot tax the Bank of the United States. Therefore, each level of government does have independent powers.

The third point deals with the source of power. It states that neither the federal or state government receives its power from the other. Both receive their power from a common source, the Constitution. In our example, the federal government did not just create the Bank of the United States. The power was given to it by the Constitution.

The last essential point dealt with the separation of power. It stated that neither the federal or state government controls a major portion of the power. In our example, neither the state or federal government had the majority of power. The power of taxation is divided between both examples.

Our example of the Supreme Court case of McCulloch v. Maryland does have the four essential points. Therefore, it is an example of federalism.

The first form of government the United States had was the Articles of Confederation (1781-1789). Is this an example of federalism? There was a division between the central and state government. So it conforms to the first point. But this by itself does not make it an example.

Did each level have its own independent powers? No, the states

decided what powers the central government would have.

Did both receive their power from a common source? No, the states had full power. In fact they created the central government. Therefore, there is no common source of power.

Does the federal or state government control a major portion of power? Yes, the states have the majority of power. Therefore, the Articles of Confederation cannot be an example of federalism. It does not have all the essential points.

As you know, the Constitution created a division of power. But how much power the federal government should have was still a question. There has always been a conflict over the role of the federal government. Some felt it should be strong. Others felt it should be weak. Supporters of the states' rights theory wanted to limit the power of the federal government. But what exactly is states' rights? It is a political theory that calls for increasing the power of the states. At the same time it also calls for limiting the power of the central government. It has three essential points:

(1) The theory supports an increase in state power.

(2) The theory supports limiting the power of the central government.

(3) The theory can be present in any form of government that has states and a central government.

Let's consider an example of states' rights. Suppose the federal government decided to pass a new law. It said that children could not criticize their parents. If children criticized their parents, they would be sent to prison. But many people in your state opposed the law.

Citizens argued it restricted freedom of speech. Your state decided to act. The people of Michigan stated: (1) The states created the federal government. (2) The power of the federal government should be limited. (3) Each state has a right to decide whether a law has gone too far. (4) A state does not have to obey the law if it goes too far. Michigan decided not ot obey the law. Is this an example of states' rights? To answer this question we must compare it to our essential points.

Did the citizens of Michigan suggest an increase in state power? Yes, they did. They wanted the state to have the right to decide whether to follow laws passed by Congress. They also said a state does not have to obey federal law. These points indicate that Michigan wanted more power for states.

Did Michigan want to limit federal power? Yes, Michigan believed the power of the federal government should be limited. Point two clearly states that view.

Is the theory present in a government with a central and state government? Obviously, our governmental system has a central and state governments. Therefore, it conforms to this point. Our example, then, has all three essential points thus making it an example of states' rights.

Another problem that dealt with children was child labor. For years children had labored in mines and meat packing houses. They often worked 16 hours a day. In 1916 Congress passed the Child Labor Laws. They prevented children under the age of 14 from working more than eight hours a day. The federal government applied the laws to all states. Many states at this time did not have child labor laws. Some of them did not want

such laws. Despite their refusal, the federal government forced the states to follow these laws.

Is this an example of states' rights? Was there an increase in state power? No, the federal government increased its power over the state. They had to follow the Child Labor Act.

Was the power of the central government limited? Obviously, it was not. The federal government was increasing its power.

Is there a central and state government in the example? The United States has such a division. Since the Child Labor Laws lack two of the essential points, it cannot be an example of states' rights.

Child labor was not the only problems facing the United States. During the 1870's and 1880's farmers were upset with problems in the United States. They began demanding national reform. To be effective they developed political organizations. Eventually, in 1891 they formeed the Populist Party. The Populist Party means the People's Party. They adopted a platform which demanded the following: (1) The government should own and operate railroads, telegraph, and telephone systems. (2) The government should develop a Sub-treasury Plan. Under this plan, farmers could store surplus crops in government warehouses. They could, then, use the crops to borrow money. (3) The government should adopt a graduated income tax. (4) The government should enforce an eight hour working day.

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their points called for government ownership of railroads. The federal government does not have that power today. The Populists also wanted the federal government to establish an eight hour working day. This would have meant forcing the states to adopt new laws. Obviously, the Populist Party reforms were not an example of states' rights.

The 1820's was another period of protest. In 1828 the federal government passed a new tariff. It imposed high taxes on imports. The Southern states protested, because it made prices higher for them. To them it favored the industries of the North. It protected northern industries while increasing prices in the South. In 1832 Congress tried to lower the Tariff of 1828. But this did not satisfy the South. They denounced both tariffs. To the South they were unjust and oppressive. In reaction South Carolina issued the Ordinance of Nullification. The Ordinance of Nullification was passed by the state legislature. Nullification gave them the power to overrule the tariff. Is nullification an example of states' rights?

Did the Ordinance of Nullification increase state power? It most certainly did. The Ordinance gave the state power to overrule the tariff. This is a power the state did not have before passing the Ordinance of Nullification.

The Ordinance of Nullification also tried to limit the power of the federal government. South Carolina felt Congress had too much power. With the Ordinance of Nullification it tried to reduce the power of the federal government.

The theory of nullification was present in a government that had

central and state governments. The United States has a Federal System. Therefore, it has a division. The Ordinance of Nullification is, then, an example of states' rights. It contains all three essential points.

Our government was not always a Federal System. During the Confederation Period (1781-1789) the states controlled most of the power. This was a Confederation Form of Government. What is a confederation? It is a system of government in which the states have most of the power. As a result, the central government is weak. A confederation has four essential points. These points help distinguish it from all other forms of government.

(1) States have all power except that given to the central government.

(2) The central government has very little power.

(3) The central government has no power to enforce laws.

(4) The central government handles matters of common concern.

All examples of a confederation must have all four points. Without these the example cannot be a confederation.

These essential points do not mean much by themselves. However, the following example might help clear up matters. The student council at your school is an example of government. But is it an example of a confederation? To answer this question, we must compare the two. Who has the most power in a student government? In most schools it is the principal. The students have very little power. The principal, then, has similar powers a strong central government would have. This relationship is just the opposite of a confederation. In a confederation there can be no strong central government. For instance, in most schools students

could not change the dress code without the principal's approval. It could only be done with the principal's approval. In a confederation the students would not need the principal's approval. The power would come from the students. It would not come from the principal.

Does this esample have all four essential points? No, it does not. One of the essential points states that the central government ( the principal) must be weak. In our example he is very strong. Therefore, it cannot be an example of a confederation. To be an example, it must have all four points. Our example does not.

What about our neighbor to the North, Canada? Does it have a confederation? How does their government compare to our example of confederation? Do the states or in the case of Canada, the provinces, have most of the power? No, the power is divided between the provinces and the central government. The power is divided much like that of our own government.

Does the central government have the power of enforcement? Yes, the central government has this power. Each level of government has a court system. The Canadian Court System is similar to our own. Any dispute between provinces is handled by the central government. This is opposite from a confederation. In a confederation state law is supreme. The central government handles only those cases agreed to by the states involved. It cannot act by itself.

Does the Canadian government handle matters of common concern? Yes, in Canada the central government has this power. It is responsible for national defense. This is a matter of common concern.

central and state governments. The United States has a Federal System. Therefore, it has a division. The Ordinance of Nullification is, then, an example of states' rights. It contains all three essential points.

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(3) The central government has no power to enforce laws.

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All examples of a confederation must have all four points. Without these the example cannot be a confederation.

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could not change the dress code without the principal's approval. It could only be done with the principal's approval. In a confederation the students would not need the principal's approval. The power would come from the students. It would not come from the principal.

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What about our neighbor to the North, Canada? Does it have a confederation? How does their government compare to our example of confederation? Do the states or in the case of Canada, the provinces, have most of the power? No, the power is divided between the provinces and the central government. The power is divided much like that of our own government.

Does the central government have the power of enforcement? Yes, the central government has this power. Each level of government has a court system. The Canadian Court System is similar to our own. Any dispute between provinces is handled by the central government. This is opposite from a confederation. In a confederation state law is supreme. The central government handles only those cases agreed to by the states involved. It cannot act by itself.

Does the Canadian government handle matters of common concern? Yes, in Canada the central government has this power. It is responsible for national defense. This is a matter of common concern.

Therefore, it is impossible for the Canadian government to be an example of a confederation. They are similar on only one point. To be an example all four must be similar.

On December 20, 1860 South Carolina began a step that would lead to to formation of a new government. It seceded from the United States. By Fedruary 4, 1861 six other states had left the Union. One month before Lincoln was to take office they met in Montgomery, Alabama. Their purpose was to form a new government. It would be called the Confederate States of America. Was this new government an example of a confederation? How does the example compare with the essential points? Did the states have most of the power? Under the Constitution of the Confederate States of America (C.S.A.), the states controlled most of the power.

Was the central government weak? Yes, the central government had much less power than the federal government. The C.S.A. intentionally made the central government weak. This had been one of the reasons they seceded from the Union. The federal government had too much power.

Did the central government have the power to enforce laws? No, most of the power of enforcement belonged to the states. The central government had only that power given to it by the states.

Did the central government handle matters of common concern? Yes, its primary duty was to fight the Civil War. Obviously, this was of common concern. It also took care of foreign affairs. The C.S.A. realized this power had to be given to the central government.

The C.S.A. was, then, an example of a confederation. It had all four essential points.

Earlier the Articles of Confederation were mentioned. Between 1781-1789 our government was run by them. Why are the Articles an example of a confederation? First, does the state have all the power except that given to the central government? Yes, the Articles created the central government. This meant the states did not have a central government until they made one. They gave the central government only limited power. It could raise an Army and Navy. It had the power to conduct foreign relations. It could also declare war. All other power belonged to the states.

Second, under the Articles did the central government have very little power? It had much less power than the states. For example, the central government had no control over commerce. The states controlled commerce. Each state could pass separate laws dealing with commerce. Shoes made in Massachusetts could not be sold in Virginia. The difference in commerce laws made it impossible. The central government had no power to change such laws. It was too weak.

Three, does the central government lack the power to enforce laws? Yes, the Articles did not provide for national courts. Each state merely agreed to follow the law of the other states. But there was no way to enforce this agreement. The central government had no power to settle disputes between states. They had to be solved by the states involved.

Four, did the central government handle matters of common concern? Yes, the central government did handle matters of common concern. Foreign affairs and national defense are just two examples. Without the central government each state would handle its own foreign affairs. States could,

then, make treaties with any country. Think of the difficulty this would cause. New York and Pennsylvania could have separate treaties with England. What would happen if England declared war on France? Would both have to send aid? Or would just one state be required to send troops? For this reason the power was given to the central government.

The Articles of Confederation are an example of a confederation. It has all four essential points.

APPENDIX G

Comprehension Test

# COMPREHENSION TEST

DIRECTIONS: After you have finished reading your material answer the following questions. You may NOT look back at the material you just read to answer any questions. Select the response that best answers the question. There is only ONE correct answer for each question. Please answer all the questions.

1. In 1984 the nation of Tods decided to abolish all the states. There would be only a central government to make the laws. The Toad's government would be an example of

   a. a confederation.
   b. federalism.
   c. states' rights.
   d. non of the above.

2. In a Confederation the central government would

   a. have more power than the state governments.
   b. have the same power as the state governments.
   c. be responsible for only those powers given to it by the states.
   d. NOT handle matters of common concern.

3. During the 1890's the state of Missouri felt the power of the federal government was too strong. Missouri felt the state should be free to pass its own laws which could not be changed by the federal government. Given these conditions, Missouri's position would be considered an example of

   a. a confederation.
   b. federalism.
   c. states' rights.
   d. none of the above.

4. The equal dividion of power between the central and state government is a critical point of

   a. a confederation.
   b. federalism.
   c. states' rights.
   d. none of the above

5. In a nation called Westport the central government passed a law which told regional (state) governments what crops they could plant. The regions protested, but the regions had no power to change the law. The regional governments' lack of power is an critical point of

   a. a confederation.
   b. federalism.
   c. states' rights.
   d. none of the above.

6. One problem with the Articles of Confederation was that it did not provide for a

   a. national court system.
   b. state court system.
   c. central government.
   d. state government.

7. The United Nations in a group of national states which came together to help keep world peace. The members of the U.N. gave it the power to discuss problems of common concern, but no power to enforce its rulings. Given these conditions, the U.N. is an example of

   a. a confederation.
   b. federalism.
   c. states' rights.
   d. none of the above.

8. Select the proper order in which these events occurred.

   a. American Revolution, adoption of the Constitution, Articles of Confederation.
   b. American Revolution, Articles of Confederation, adoption of the Constitution.
   c. Articles of Confederation, American Revolution, adoption of the Constitution.
   d. Adoption of the Constitution, American Revolution, Articles of Confederation.

9. When the space men landed on the moon, their first task was to set up a new government. They divided the power equally between the central and regional (state) governments. Each had its own independent power. Any future problems could be settled by the Moon Constitution. The new Moon nation would be an example of

   a. a confederation.
   b. federalism.
   c. states' rights.
   d. none of the above.

10. In France the central government decides what powers the state governments will have. This example is representative of a government run by

    a. a confederation.
    b. federalism.
    c. states' rights.
    d. none of the above.

11. In 1800 the federal government attempted to enforce the Alien and Sedition Acts. To prevent the Alien and Sedition Acts from being enforced Virginia and Kentucky passed resolutions which overruled these laws. Virginia and Kentucky's responded like a government run by

    a. a confederation.
    b. federalism.
    c. states' rights.
    d. none of the above.

12. The central government's inability to enforce the laws it passes is a critical point of

    a. a confederation.
    b. federalism.
    c. states' rights.
    d. none of the above.

13. In 1954 Arkansas would not let black children attend schools with white children even though the federal law stated blacks could attend schools with whites. Arkansas believed it did not have to follow this federal law. Arkansas's refusal to obey the federal law would be an example of

    a. a confederation.
    b. federalism.
    c. states' rights.
    d. none of the above.

14. Many citizens are concerned with pollution. The federal government is passing laws to control the level of pollution. Under federalism, states would

    a. overrule the federal laws.
    b. make their own laws regardless of the federal laws.
    c. NOT be permitted to make their own laws.
    d. cooperate with the federal government in making laws.

15. The Articles of Confederation came

    a. after the Constitution.
    b. before the Constitution.
    c. at the same time as the Constitution.
    d. before the American Revolution.

16. The common source of power in federalism would be the

    a. central government.
    b. state government.
    c. constitution.
    d. court system.

17. One critical point of states' rights is that the state

    a. has equal power with the federal government.
    b. creates the federal government.
    c. has no power to enforce laws.
    d. seeks to increase its power over the federal government.

18. The British central government controls a major source of the power. Therefore, the central government delegates power to the regional (state) governments. The British government is an example of

    a. a confederation.
    b. federalism.
    c. states' rights.
    d. none of the above.

19. Under the Articles of Confederation a power given ONLY to the central government was the power to

    a. overrule state laws.
    b. conduct foreign affairs.
    c. collect taxes.
    d. control trade between states.

20. A system of government in which states have most of the power thus creating a weak central government is a critical point of

    a. a confederation.
    b. federalism.
    c. states' rights.
    d. none of the above.

## REFERENCES


Arnsdorf, V. E. Study of intermediate grade children's understanding of basal social studies material. California Journal of Educational Research, 1963, 14, 67-75. (a)

Arnsdorf, V. E. Time and space terms in basal social studies materials. California Journal of Educational Research, 1963, 14, 23-29. (b)

Ausubel, D. P. The use of advance organizers in the learning and retention of meaningful material. Journal of Educational Psychology, 1960, 51, 267-272.

Ausubel, D. P., & Fitzgerald, D. The role of discriminability in meaningful verbal learning and retention. Journal of Educational Psychology, 1961, 52, 266-274.

Barrett, T. C. Taxonomy of cognitive and affective dimensions of reading comprehension. Discussed by T. Clymer in What is reading?: Some current concepts. In Helen M. Robinson (Ed.) Innovation and change in reading instruction. Sixty-seventh yearbook: National Society for Study in Education. Chicago: University of Chicago Press, 1968, 1-30.

Blount, N. S., Klausmeier, H. J., Johnson, S. L., Frederick, W. C., & Ramsay, J. G. The effectiveness of programmed materials in English syntax and the relationship of selected variables to the learning concepts. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1967, No. 17.

Bond, G. L., & Wagner, E. B. Teaching the child to read. New York: The MacMillan Company, 1966.

Bourne, L. E., Jr. Human conceptual behavior. Boston: Allyn and Bacon, Inc., 1966.

Bruner, J. S. The process of education. New York: Random House, Inc., 1960.

Coltham, J. B. Junior school children's understanding of some terms commonly used in the teaching of history. Unpublished doctoral dissertation, University of Manchester, 1960.

Cromer, W., & Wiener, M. Reading and reading difficulty: A conceptual analysis. Harvard Educational Review, 1967, 37, 620-643.

Curry, R. L. & Hughes, H. Subject areas preferred by high school juniors. Peabody Journal of Education, 1965, 42, 236-240.

Dechant, E. Improving the teaching of reading. Englewood Cliffs: Prentice-Hall, Inc., 1964.

Dimitroff, L. Quantitative-qualitative analysis of selected social studies generalizations in social studies textbooks in intermediate grades. Journal of Educational Research, 1961, 55, 135-137.

Dulin, K. L. The middle half: How alike are they, really? Journal of Reading, 1970, 13, 603-609.

Dunlap, R. L. Conceptualization: An alternative to chronology. History Teacher, 1971, 5, 58-60.

Ebel, R. L. Measuring educational achievement. Engle Wood Cliffs, N.J.: Prentice-Hall, Inc., 1965.

Frayer, D. A. Effects of number of instances and emphasis of relevant attribute values on mastery of geometric concepts by fourth and sixth grade children. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1970, No. 116.

Frayer, D. A., Frederick, W. C., & Klausmeier, H. J. A schema for testing the level of concept mastery. Working Paper from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1969, No. 16.

Frayer, D. A., Klausmeier, H. J., Scott, J. A. A study of three concepts of probability possessed by children in 4th, 5th, 6th, and 7th grades. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1971, No. 170.

Fredrick, W. C., & Klausmeier, H. J. Instruction and labels in a concept attainment task. Psychological Reports, 1968, 23, 1339-1342.

Fry, E. Readability formula that saves time. Journal of Reading, 1968, 12, 513-516, 575-578.

Furst, E. J. Constructing evaluation instruments. New York: David McKay Co., Inc., 1958.

Gagne, R. M., Context, isolation, and interference effects on the retention of facts. Journal of Educational Psychology, 1969, 60, 408-414.

Gagne, R. M., & Wiegard, V. K. Effects of superordinate context on learning and retention of facts. Journal of Educational Psychology.

Goldman, R. Some aspects of the development of religious thinking in childhood and adolescence. Unpublished doctoral dissertation, University of Birmingham, 1962.

Greenblatt, E. L. An analysis of school subjects preferences of elementary school children of the middle grades. Journal of Educational Research, 1962, 55, 554-555.

Harris, M. L. Some methodological suggestions for construction of an Objective Measurement Instrument. Technical Memorandum, Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1968, No. M-1968-2.

Herber, H. Teaching reading in the content areas. Englewood Cliffs: Prentice-Hall, Inc., 1970.

Horst, P. Psychological measurement and prediction. Belmont, Calif.: Wadsworth Publishing Company, 1966.

Hunt, K. W. Grammatical structures written at three grade levels. National Council of Teachers of English, Champaign, Ill., 1965.

Johnson, R. M. A critical analysis of the treatment given representative social science ideas in leading fifth and eighth grade American history textbooks. Unpublished doctoral dissertation, Northwestern University, 1967.

Kalish, P. W. Concept attainment as a function of monetary incentives, competition, and instruction. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1966, No. 8.

Klausmeier, H. J. Cognitive operations in concept learning. Paper presented at the meeting of the American Psychological Association, Washington, D.C., September, 1971.

Klausmeier, H. J., & Meinke, D. L. Concept attainment as a function of instructions concerning the stimulus material, a strategy, and a principle for securing information. Journal of Educational Psychology, 1968, 59, 215-222.

Klausmeier, H. J., & Ripple, R. E. Learning and human abilities: Educational psychology, 3rd ed. New York: Harper and Row, 1971.

Klausmeier, H. J., Sterrett, B. E., Frayer, D. A., Lewis, S. B., Lee, V. W., & Bavry, J. L. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1969, No. 82.

Lee, J. R., & Anderson, L. F. New approaches to the material for a sequential curriculum on American society for grades five to twelve. Vols. 1-2, Social Studies Curriculum Center, Northwestern University, 1970.

Lynch, D. O. Concept identification as a function of instruction, labels, sequence, concept type, and test item type. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1966, No. 61.

Markle, S. M., & Tiemann, P. W. Really understanding concepts: Or in frumious pursuit of the jabberwock. Champaign, Ill.: Stipes Publishing Co., 1969.

Oaken, R., Wiener, M., & Cromer, W. Identification, organization, and reading comprehension for good and poor readers. Journal of Educational Psychology, 1971, 62, 71-78.

Otto, W. O., McMenemy, R. A., & Smith, R. J. Corrective and Medial Reading, 2nd ed. Boston: Houghton Mifflin, 1973.

Pfannkuche, C. L. A modest proposal for history teachers. Social Studies, 1971, 62, 243-246.

Proger, B. B., Taylor, R. G., Mann, L., Coulson, J. M., & Bayuk, R. J. Conceptual pre-structuring for detailed verbal passages. Journal of Educational Research, 1970, 64, 28-34.

Ratcliffe, R. H. A critical analysis of the treatment given representative social science ideas in leading eleventh grade American history textbooks. Unpublished doctoral dissertation, Northwestern University, 1966.

Robinson, H. M. The major aspects of reading. By H. M. Robinson Reading: Seventy-five years of progress. Chicago: University of Chicago Press, 1966.

Russell, D. H. Children's thinking. Waltham, Mass.: Ginn and Co., 1956.

Scott, J. A. The effects on short- and long-term retention and on transfer of two methods presenting selected geometry concepts. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1970, No. 138.

Smith, R. J., & Hesse, K. D. The effects of prereading assistance on the comprehension and attitudes of good and poor readers. Research in the Teaching of English, 1969, 3, 165-177.

Smuckler, N. S. Concept formation as a function of method of presentation and ratio of positive to negative instances. Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1967, No. 27.

Tabachnick, B. R., Weible, E., & Frayer, D. A. Selection and analysis of social studies concepts for inclusion in tests of concept attainment. Working Paper from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 1970, No. 53.

Watts, A. R. Conceptual clarification of certain georgraphic terms through the use of five presentation models. Dissertation Abstracts, 1965, 26, 1519.

Wood, D. A. Test construction: Development and interpretation of achievement tests. Columbus, Ohio: Charles E. Morrill Books, Inc., 1960.

Wood, D. M. Some concepts of social relations in childhood and adolescence investigated by means of the analysis of the definitions. Unpublished master's thesis, University of Nottingham, 1964.